Trapping and Conservation Manual

1985

THIRD EDITION

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avc
lac la biche

Alberta
ENERGY AND
NATURAL RESOURCES
Fish and Wildlife Division

Foreword

Trapping is the oldest land-based industry in North America. Since its early beginning more than 400 years ago, trapping has undergone many changes. Harvesting methods, equipment and fur handling techniques have radically changed and are continually evolving. Public attitudes have also changed. Much of the continent's population is concentrated in urban areas where there is little opportunity for people to be in contact with trapping or to learn about nature's furbearers. Like every industry, trapping demands professionalism. Trappers must be proficient at their jobsand must at all times project a good image.

For these reasons, the province of Alberta has developed this basic course for trappers. The curriculum has been designed to increase awareness of the trapper's responsibilities, while introducing new trappers to acceptable trapping methods, equipment and handling techniques, law, history, biology, ecology and outdoor skills. The course has also been designed to help trappers realize the possible economic and conservation gains derived from sound furbearer management.

The course will help provide the opportunity for personal development through a better understanding of life and death, hard work and careful study. It will encourage trappers to learn more about their industry from the experience of others. All trappers are urged to take advantage of this opportunity to improve their knowledge and perfect their skills.

This course will make it possible for you to learn what it has taken some trappers a lifetime to discover. It is your responsibility to use this information wisely, to trap lawfully, and to act in the best interests of trappers everywhere.

It is hoped that you will also encourage other trappers to follow your example and, in this way, help to further promote good trapping and conservation practices.

This manual will be of value as a source of additional information to the student - beyond what is covered in the classroom - and as a reference for yourself and others, for years to come.

ACKNOWLEDGEMENTS

This manual, prepared by the Alberta Vocational Centre at Lac La Biche and the Fish and Wildlife Division, was developed as an instructor and student source book and reference to be used in conjunction with the Alberta Trapper Education Program.

An earlier draft of this manual has been used in some 50 courses. Comments from students and instructors on the earlier draft have been greatly appreciated and, where possible, incorporated into this revision. Students and instructors are encouraged to continue to submit positive and constructive comments or ideas, with a view to improving the content of this manual.

Many people, including Alberta Vocational Centre staff, Fish and Wildlife personnel and trappers, have assisted in the development of both the course and this manual.

Contributions from the following are acknowledged and greatly appreciated:

List of Credits

Ontario Trappers Association
Ontario Ministry of Natural Resources
Canadian Trappers Federation
Saskatchewan Department of Tourism and Natural Resources
Manitoba Department of Mines, Natural Resources and Environment
Department of Indian and Northern Affairs, Canada
The Wildlife Society, Washington, D.C.
Alberta Society for Prevention of Cruelty to Animals
Federal Provincial Committee for Humane Trapping
Canadian Wildlife Federation
Hudson Bay Company
Edmonton Fur Auction Company
Slutker Fur Ltd.
British Columbia Department of the Environment
British Columbia Trappers Association
Woodstream Corporation
Canadian Association for Humane Trapping
Alberta Trappers Association
Metis Association of Alberta
Indian Association of Alberta

and the many individuals and organizations whose contributions helped to make the contents of this book more useful.

TRAPPING AND CONSERVATION COURSE MANUAL

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DACUM CHART - TRAPPING AND CONSERVATION COURSE

HISTORY AND DEVELOPMENT OF THE TRAPPING INDUSTRY	Introduction	Pre-European Period	European Period	Modern Era	Trapper & Industry Organization	Trapper Education	Fur Production & Socio-Economic Benefits
BIOLOGY OF THE FUR BEARERS	Introduction	Classification and Ecology	The Large Carnivores	The Weasel Family	The Rodents	Biology of the Badger	Biology of the Beaver
		Biology of the Bobcat	Biology of the Coyote	Biology of the Fisher	Biology of the Fox	Biology of the Lynx	Biology of the Marten
		Biology of the Mink	Biology of the Muskrat	Biology of the Otter	Biology of the Raccoon	Biology of the Skunk	Biology of the Squirrel
		Biology of the Weasel	Biology of the Wolf	Biology of the Wolverine	Parasites and diseases of furbearing animals.		
MANAGEMENT OF THE FUR BEARERS	Introduction	Fur Bearing Management-General Philosophy	Provincial Regulations Introduction	Licencing and Permits	Trapping Management Zones	Seasons and Quotas	Prohibitions and Changes
		Other Government Programs	Management of the Fur Bearers by the Trapper				
EQUIPMENT	Introduction	Capture Equipment	Trapping Accessories	Fur Handling Equipment	Transportation & Living Accommodations	Snow-Mobile Maintenance	
TRAPLINE PREPARATION AND BUSINESS MANAGEMENT	Introduction	Trapline Management Plan	Maps and Aerial Photos	Management Records	Pre-Season Set Preparation	Tax and the Trapper	Purpose and use of Lures
		Trap and Snare Treating	Snare Construction				
HUMANE TRAPPING	Introduction	Humane Trapping Definitions and Reasons	Code of Ethics	Humane Trapping Methods	Selection of humane capture devices.	Selection of trap sets and set locations.	
		Strike location, Trigger adjustment and controlling approach.	Dispatch or release of live-caught animals.				
FUR HANDLING	Introduction	Common Steps & Precautions	Open Pelts	Cased Pelts Fur in	Cased Pelts Fur Out		
MARKETING	Introduction	Movement of Furs Marketing Options & Strategies	Grading Fur	Fur Primeness	Shipping Fur		
FIRST AID AND SURVIVAL	Introduction	Factors Affecting Survival	Ice Travel and Hypothermia	Use of Compass and Maps	Survival Kits	Field Survival Techniques	
		General Procedures & Artificial Respiration	Types and Care of Injuries	First Aid Kits and	Responsibilities After First Aid		
FIELD TRIP PRACTICUM		Set Demonstrations	Student Practice Sets				

Course Objectives

To provide information to the student on:

1. Humane and efficient trapping techniques.
2. Improved fur handling methods.
3. The basic biology and management of furbearing animals.
4. Fur marketing procedures.

What is Expected of the Students

Students are expected to be in attendance at all classes.

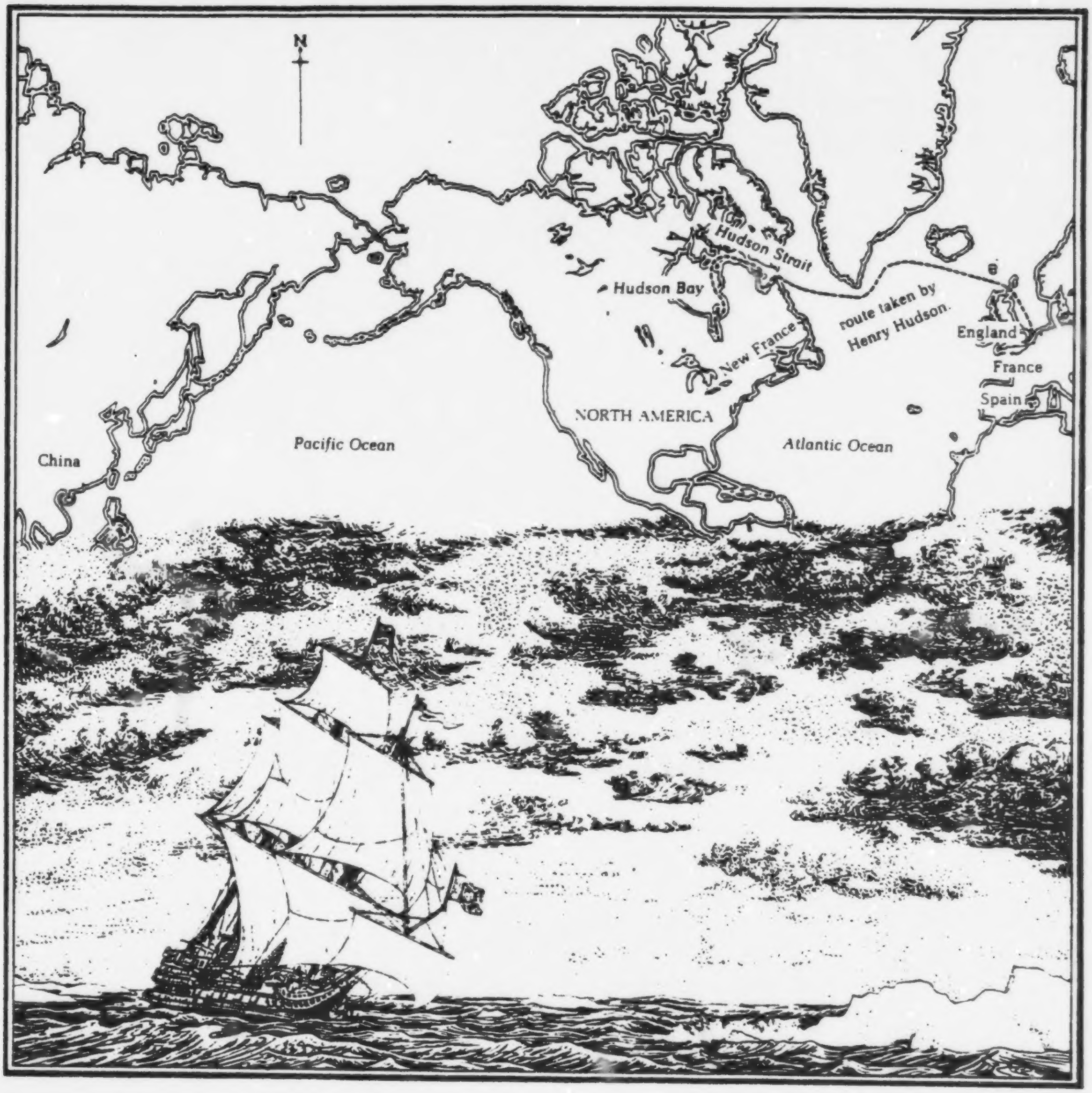
For the "Basic Trapping and Conservation Coruse":

Students who attend a minimum of four class sessions plus the field day will be qualified to receive a certificate of attendance at the end of the course.

For the "Advanced Trapping and Conservation Course" and "The Western Canadian Trapper Instructor Training Course":

Students will be evaluated on the basis of an examination as well as other performance criterion. Students who successfully complete these programs will be granted a certificate of achievement.

The History and Development of The Fur Industry


N
Hudson Strait
Hudson Bay
route taken by Henry Hudson.
England
France
Spain
New France
NORTH AMERICA
China
Pacific Ocean
Atlantic Ocean

Lesson Objectives

To provide information to the student on:

1. An overview of the history of fur harvesting.
2. An insight into the development of the fur industry in Alberta.
3. Knowledge concerning trapper and industry organizations and their purpose.
4. The purpose and value of trapper education.
5. The overall socio-economic benefits of trapping.

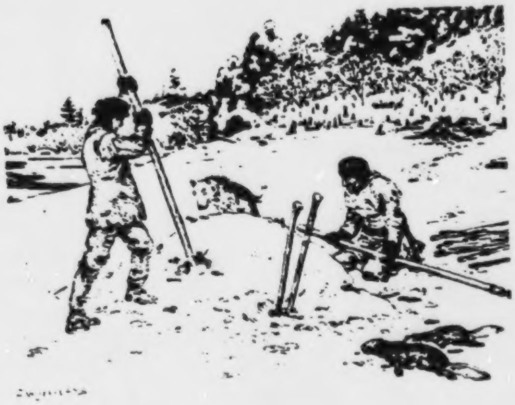
History and Development

Introduction

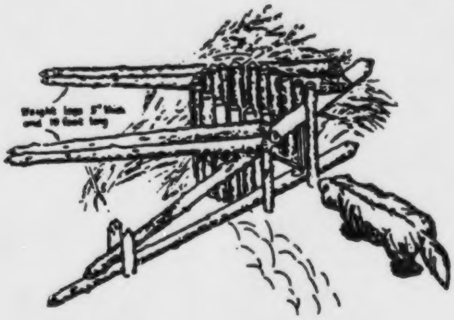
Trapping is the oldest land based industry in North America, with a recorded history of more than 400 years. During this time, it contributed immeasurably to the exploration and development of the continent. The taking of animals for furs and the recorded history and development of the industry can be roughly divided into three periods; ie: the Pre-European period, the European period and the modern period.

The Pre-European Period (approximately 2000 - 3000 years ago, to the 16th century)

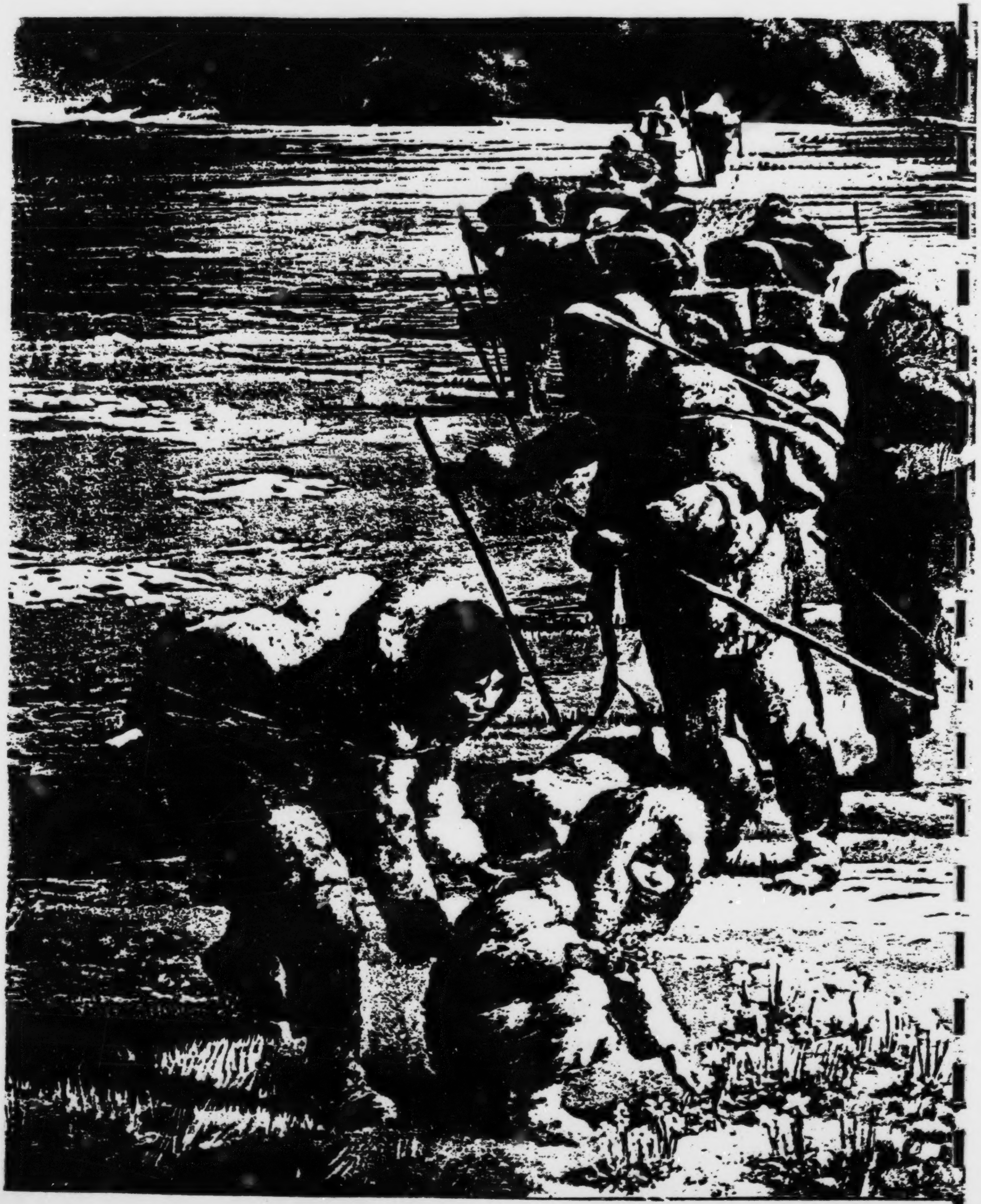
Before Europeans arrived on the North American Continent, the native people took furbearing animals for their own use for clothing, food and shelter. Generally, they took only as many animals as were needed for some prupose at the time. They did not trap for commercial trade or profit, but rather lived a life of subsistence hunting and fishing. Capture equipment was limited to a few simple devices which could be constructed from natural materials such as the deadfall, snares of rawhide or bark, pit falls, arrows, clubs, spears, etc.



WOLVERINE DEADFALL



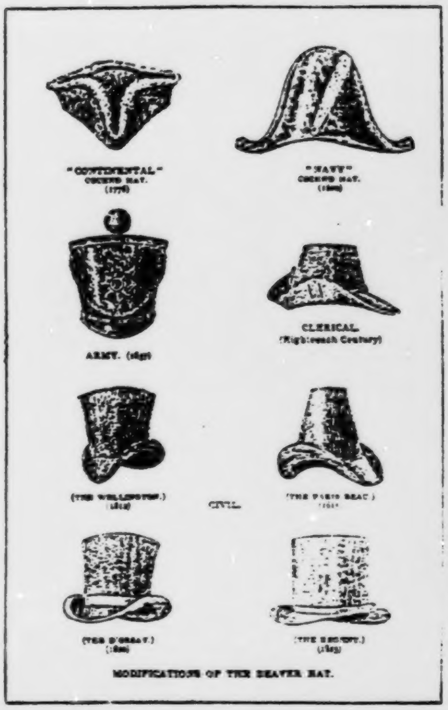
During this period, furbearing animals were abundant and were in no danger of being overharvested by man. This was due to the low human population, the limited and inefficient equipment and taboos which helped to conserve the animals. Also, there was no commercial trade for furs and little or no permanent habitat destruction or pollution.



The European Period (approximately 1650 - 1905)

The development of the fur trade in Alberta can be traced to events and conditions in Europe several hundred years ago. In the 16th century, Europe had a much denser human population than North America which was supported by the development of agriculture. The loss of habitat due to this need for farm land and the lack of proper managment created a scarcity of furbearers in the old world.

Nevertheless, there was a high demand for furs in Europe for clothing (as Europe had a cool climate), and for fashion. Felt hats were extremely popular in Europe at this time and beaver fur made the finest felt. This was due to the tiny barbed scales on the hair of beaver which, when pressed, interlocked into a tight, strong, waterproof felt.


"CONTINENTAL" COCKED HAT. (1776)
"NAVY" COCKED HAT.
ARMY.
CLERICAL (Eighteenth Century)
(THE WELLINGTON.)
CIVIL.
(THE PARIS BEAU.)
(THE D'ORSAY.)
(THE REGENT.)

MODIFICATIONS OF THE BEAVER HAT.

Europe also had manufactured goods available for trade and the technology to transport these goods to North America and furs to Europe. These manufactured goods were highly esteemed by the Indians as they made life much easier.

Europeans introduced such items as the steel trap (which had first been developed to catch poachers in the 12th century, and was later perfected for use on animals), steel snares, Guns, poison, etc. were also traded. The traders encouraged the Indians to devote more and more of their time and energies to the trapping of fur bearers rather than hunting and to trade fur for goods and food rather than obtaining these themselves.

The fur trade was a profitable venture for the merchants of Europe, but as there was no management of the resource, the fur bearers of a region were quickly depleted. The search for new sources of furs and the competition between different trading companies forced the traders to establish permanent posts in North America and to move them further and further inland. This ultimately led to the exploration of the North American continent and paved the way for its eventual settlement.

To briefly trace the main events of this period, the French established trade in the St. Lawrence Valley in approximately 1615 A.D. The English followed suit shortly afterward by forming the Hudson Bay Company in 1670 and building posts on Hudson' Bay.

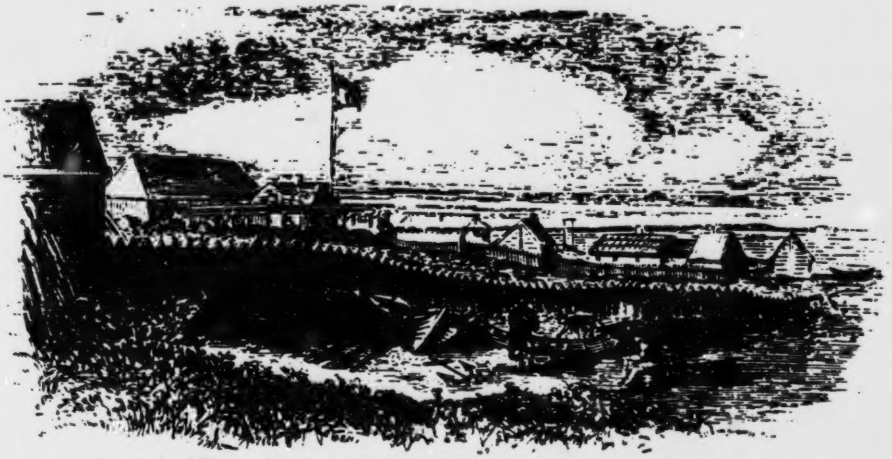
Their charter, granted by the king of England, gave them exclusive fur trading rights for all the lands draining into Hudson's Bay (then known as Rupert's Land).

Indians wishing to trade with the Hudson's Bay Company were often forced to travel great distances by canoe at great hardship and risk and most Indians from Alberta found their way blocked by hostile tribes.

However, some tribes functioned as middlemen, trading to the tribes further west, with a markup of approximately 10 times at each trade.

After the fall of New France, a group of Scottish businessmen from Montreal formed the North West Company and developed an inland chain of posts supplied by the colourful canoe brigades of the voyageurs.

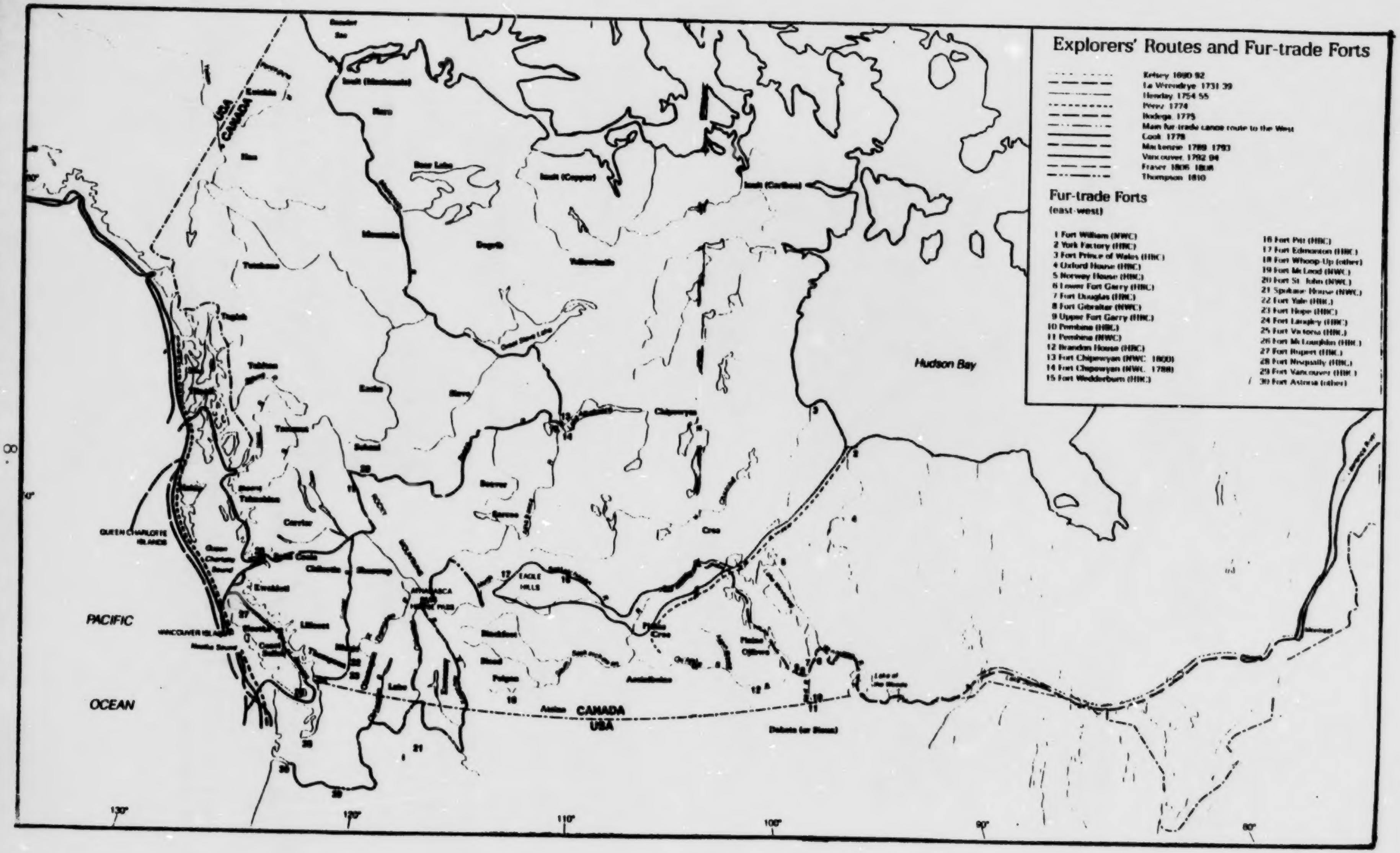
The Indian middlemen were thwarted and the Hudson's Bay Company was forced to build inland posts, using York boats as transportation. Cumberland House, established in 1774, was the first inland Hudson's Bay post.

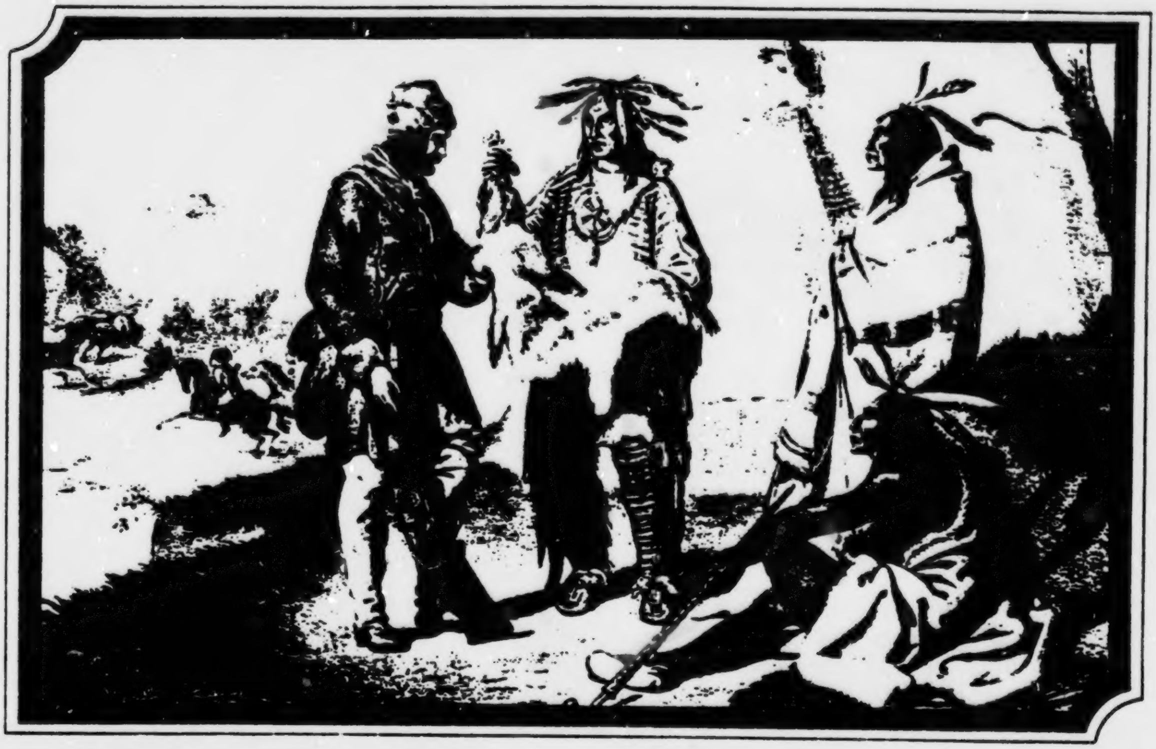


Cumberland House, from a sketch taken by the Henry Youle Hind expedition of 1858.

This competition resulted in a trade rivalry which threatened to destroy the fur trade. As a result, the two companies amalgamated in 1821 under the name of the Hudson's Bay Company.

From 1821 - 1900 A.D., the Hudson's Bay Company had a virtual monopoly of the fur trade. They tried at times to regulate and conserve the fur animals which had been reduced during the period of the trade wars, but were hampered in this by the activities of of the free traders.


Explorers' Routes and Fur-trade Forts
Kelsey 1690 92
La Vérendrye 1731 39
Henday 1754 55
Pérez 1774
Bodega 1775
Main fur-trade canoe route to the West
Cook 1778
Mackenzie 1789 1793
Vancouver 1792 94
Fraser 1806 1808
Thompson 1810
Fur-trade Forts
(east-west)
1 Fort William (NWC)
2 York Factory (HBC)
3 Fort Prince of Wales (HBC)
4 Oxford House (HBC)
5 Norway House (HBC)
6 Lower Fort Garry (HBC)
7 Fort Douglas (HBC)
8 Fort Gibraltar (NWC)
9 Upper Fort Garry (HBC)
10 Pembina (HBC)
11 Pembina (NWC)
12 Brandon House (HBC)
13 Fort Chipewyan (NWC 1800)
14 Fort Chipewyan (NWC 1788)
15 Fort Wedderburn (HBC)
16 Fort Pitt (HBC)
17 Fort Edmonton (HBC)
18 Fort Whoop-Up (other)
19 Fort McLeod (NWC)
20 Fort St. John (NWC)
21 Spokane House (NWC)
22 Fort Yale (HBC)
23 Fort Hope (HBC)
24 Fort Langley (HBC)
25 Fort Victoria (HBC)
26 Fort McLoughlin (HBC)
27 Fort Rupert (HBC)
28 Fort Nisqually (HBC)
29 Fort Vancouver (HBC)
30 Fort Astoria (other)
Hudson Bay
PACIFIC
OCEAN
QUEEN CHARLOTTE ISLANDS
VANCOUVER ISLAND
CANADA
USA
Bear Lake
EAGLE HILLS
ATHABASCA
Hare
Dogrib
Yellowknife
Chipewyan
Cree
Carrier
Lillooet
Blackfoot
Assiniboine
Dakota (or Sioux)
130°
120°
110°
100°
90°
80°



During this period of the European fur trade, increasing pressures were brought to bear on the furbearing animals. This was due to the unrestrained commercial harvesting of the resource by more sophisticated and efficient means (steel traps, etc.). Also, human populations were becoming more concentrated around the posts, resulting in serious overtrapping in these areas.

As a result, furbearer populations seriously declined in many areas and might have even disappeared in some places except for the restraint imposed by the monopoly trade and the sharp drop in demand for felt after 1830 as a result of silk becoming the popular material for hat making.

The Modern Period (1905 - present)

The European period came to an end in the west with the ceding of lands from the Hudons's Bay Company to the Government of Canada. The jurisdiction over trapping activities then became the responsibility of the Federal Government of Canada. In 1860, the first law controlling the trapping of furbearing animals was passed in Canada and over the next 55 years, the seasons were adjusted - often closed - in an effort to halt the decline in several species. However, regulations were few and law enforcement was almost nonexistent.

The human population increased sharply due to the immigration of settlers and considerable habitat was lost to land clearing for settlement.

During the dry and dusty thirties, many people turned to trapping as a livlihood. Unfortunately, some used unscrupulous means such as poison, etc. to obtain fur.

As a result, furbearer populations continued to decline and beaver were almost extinct in the north during the 1930's.

In 1905, Alberta became a province, with the Game branch being under the Department of Agriculture. Game laws were under the Northwest Territories Game Ordinance at this time and were enforced by the R.C.M.P. In 1907, the first Game Act of Alberta came into existence and in 1930, jurisdiction of the fur resource came under provincial control through the Natural Resource Transfer agreement. This gave the province the right to manage its own fur resources.

Over the next 50 years, regulation of the fur industry was vastly improved. Registered traplines were formed around 1940 - 1942.
Ralph Bice, an Ontario trapper, was the first to suggest this system in Canada. Trapping zones were outlined, licencing of trappers and fur buyers was initiated, harvest seasons were

restricted, quotas were set on some species, other regulations were refined and better enforcement was carried out. In 1944 - 1945, the formation of the Trapper Association, which represented the trappers' interests to the goverment, led to a co-operative approach to fur management. Other conservation and management measures included research into the biology of various furbearers, stocking programs, the creation of park preserves and wildlife management units, withdrawal of the bounties, etc.

Some relief in trapping pressure also resulted from the introduction of fur farming; further reduction occurred from low prices and consumer demand during the 1950's - 1960's. There was a short set-back from 1951 - 1953, due to the Rabies control program which reduced some recovering furbearer populations sharply.

As a result of this intensive regulation and management of the resource, furbearer populations have recovered, to the point that fur production in the last two decades in Alberta is probably higher than ever before recorded. Indeed, today, most of Alberta's 18 species of furbearing animals have a stable population and the resource is harvested in an orderly manner throughout the province.

At this time, some 3,000 registered trappers harvest furs from crown lands in Alberta, while an additional 5,000 resident trappers are involved in trapping on private lands.

Wildlife officers, biologists, trappers and various other organizations today are co-operating to assure that trapping and the fur indusry is maintained and managed for the benefit of all Albertans. The following fur records, taken from the divisional annual reports, clearly reflect the economic value of our fur resources.

Year	Total Value of Fur Produced by Trappers
1972-73	$5,746,415.91
1973-74	$4,310,328.22
1974-75	$3,492,671.66
1975-76	$4,969,974.28
1976-77	$7,090,615.00
1977-78	$6,317,069.15
1978-79	$11,795,151.00
1979-80	$15,571,790.00
1980-81	$12,077,240.52
1981-82	$9,733,789.70
1982-83	$7,597,454.95
1983-84	$5,696,214.71

The socio-economic benefits to the province from this industry are indeed substantial and certainly justify continuing this careful management of the fur bearers.

It is important to note that, right up to the present time, Europe continues to play an important role in the fur trade and is still the main market for Canadian furs. West Germany is the biggest, single buyer. Italy, France and Great Britain are also major consumers. The United States is buying more, but has generally had the habitat and fur to provide much of its own needs. Japan and other far eastern nations are becoming more prominent in the trade as their industrial wealth increases and they adopt western fashions.

The Soviet Union is a major fur producer, but trades only about 10% of its production; the rest is consumed internally.

Some other important developments which have occurred in recent times are the expansion of trapper organizations, formal trapper education programs, humane trap research and development and other organizations which relate to the industry such as the Fur Institute of Canada.

Fur Managers

Every provincial and territorial jurisdiction in Canada employs biologists or other wildlife personnel to manage their fur resources.

Representatives from this key group meet annually at either the western or eastern Fur Manager's Conferences. Northern and National Fur Managers' conferences are also held periodically. Issues relating to all aspects of fur management of the industry are discussed and recommendations are made to their respective governments.

Members from the eastern and western fur managers are also represented on the committees of the Fur Institute of Canada as are each of the trappers associations.

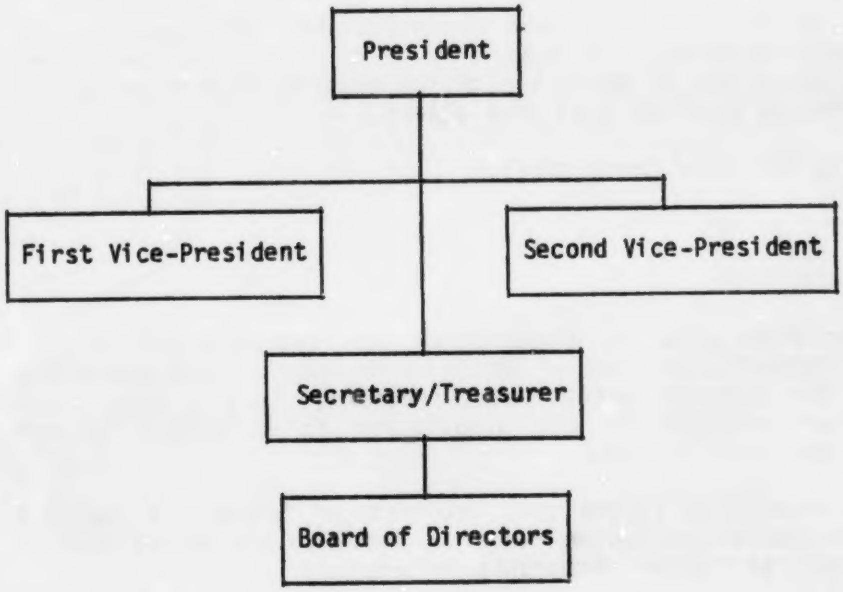
Trapper Organization

Every province in Canada, the Yukon and Northwest Territories has a trappers Association. These bodies are elected by trappers and the main purpose of these associations is to give trappers a united voice, ie: input to the government or the public at large and by this means, to protect and promote the interests of trappers and the trapping industry.

In Alberta, trapper organizations were first formed in 1945. The main organization today is the Alberta Trappers Association. This association consists of numerous local chapters throughout the province (see map), as well as a provincial executive. The organizational structure is as follows:

ALBERTA TRAPPERS ASSOCIATION

Organizational Structure of Provincial Executive


President
First Vice-President
Second Vice-President
Secretary/Treasurer
Board of Directors

All the members of the provincial executive shown above (except the board of directors), are elected by delegates at the annual convention and hold a term of office of one year. The annual convention is generally held the second weekend of June. The Board of Directors consists of approximately 12 members which are selected and function on the basis of the following system:

The province is divided into 6 zones (see map). Each zone elects 2 directors to represent the membership of the locals in that zone. There is a provision for more directors should membership in a zone become large enough. There are four directors' meetings each year, at which they may bring up the concerns of their memberships to the provincial executive. At other times, they may contact the president of the A.T.A. individually.

Zone meetings are organized by the directors each spring, at least 30 days prior to the June convention; at that meeting, delegates from the locals in that zone elect the zone directors for the following year. The newly elected directors officially take over their duties after the convention.

If a director resigns or, for other reasons, cannot continue to function as a director, a new zone meeting is called and a new director elected.

The ATA locals have the same organizational structure as the provincial executive, but with only 2 directors in most cases although there may be more, and this executive is elected by the local membership of the area once a year.

Membership may be of three types:

1. active
2. associate
3. honarary life

The Association produces a quarterly publication known as "The Alberta Trapper", the cost of which is included in the membership fee. The current executive, Directors, Locals and other information relating to the association is contained in the journal (see illustration).

It would seem to be in the best interests of trappers to support their association and become members. Refer to the pocket page in this manual for further membership information.

THE Alberta Trapper

Official Journal of the
Alberta Trappers Association

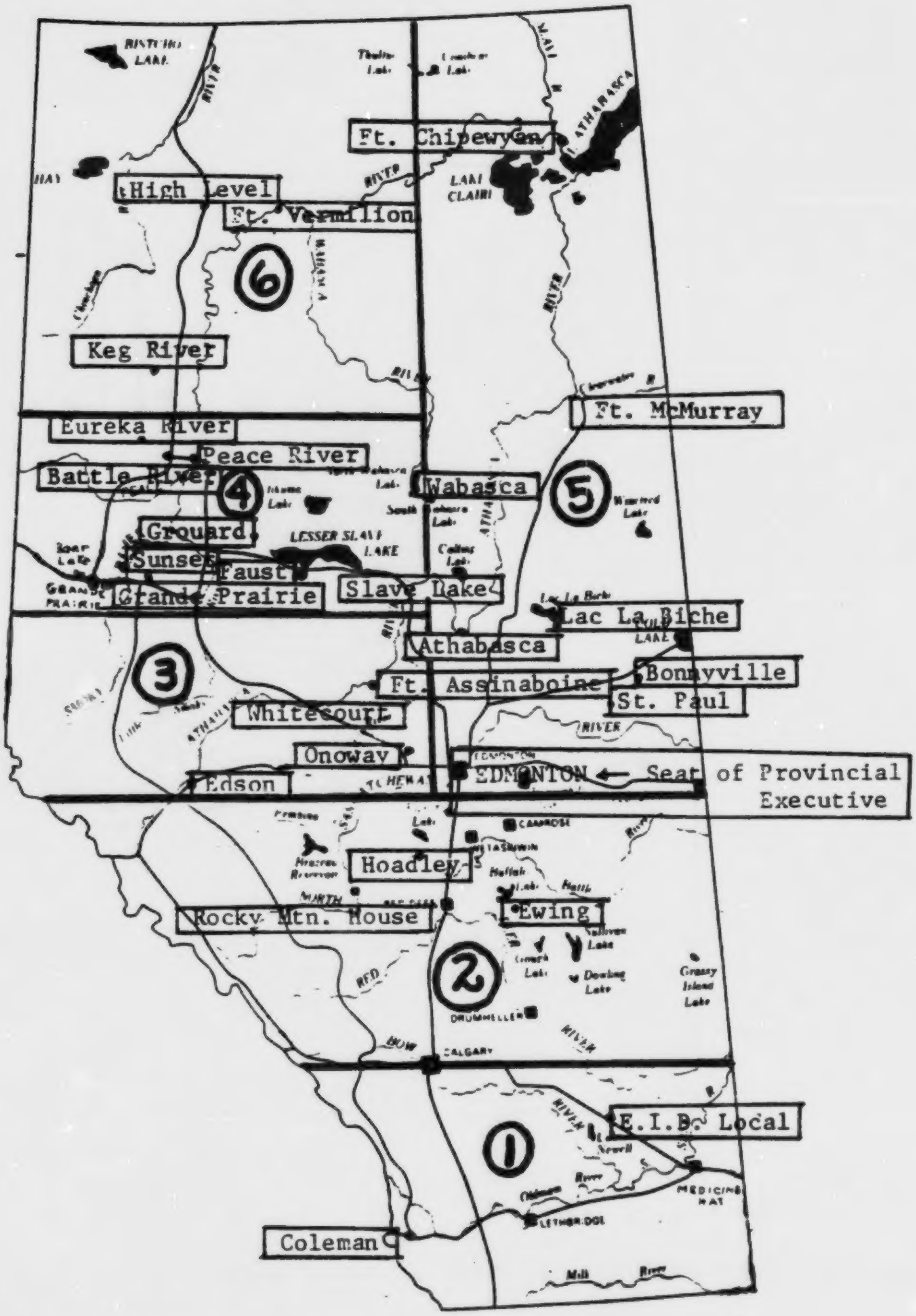
WINTER 1985

The Alberta Trapper

Published four (4) times a year: January, April, July & October

For further information on the magazine and the names, addresses and telephone numbers of the current executive, directors and local secretary/treasurers of the ATA, refer to the pocket page at the back of this manual.

ALBERTA TRAPPERS ASSOCIATION - PROVINCAL ZONES AND LOCALS


Ft. Chipewyan
High Level
Ft. Vermilion
⑥
Keg River
Ft. McMurray
Eureka River
Peace River
Battle River
④
Wabasca
⑤
Grouard
Sunset
Faust
Grande Prairie
Slave Lake
Lac La Biche
Athabasca
③
Ft. Assinaboine
Bonnyville
St. Paul
Whitecourt
Onoway
Edson
EDMONTON ← Seat of Provincial Executive
Hoadley
Rocky Mtn. House
Ewing
②
CALGARY
E.I.D. Local
①
Coleman
LETHBRIDGE
MEDICINE HAT
LAKE ATHABASCA
LAKE CLAIRE
LESSER SLAVE LAKE
DRUMHELLER
CAMROSE
WETASKIWIN

KEEWATIN HUMANE TRAPPERS ASSOCIATION

Covers that portion of Alberta lying North of #16 Highway

Registered under the Societies Act of Alberta on October 20, 1983

Members of the Board of Directors are elected for two-year terms, with six of the twelve members being elected each year. They are chosen from the membership at large and must be eigher an "active member" or an "associate member".

Membership consists of three types:

(a) Active member - means a person who holds a current and valid license to trap furbearing animals in the Province of Alberta

(b) Associate member - means a person who helps or assists a trapper in the business of trapping

These two types of memberships allow the holder to vote at any and all meetings.

(c) Supporting members - means any person who wishes to support the aims and objects of the association and purchases membership in same.

Membership fee is $10.00 per year.

Some of the objects of the Keewatin Humane Trappers Association, as they appear in the articles of incorporation, are as follows:

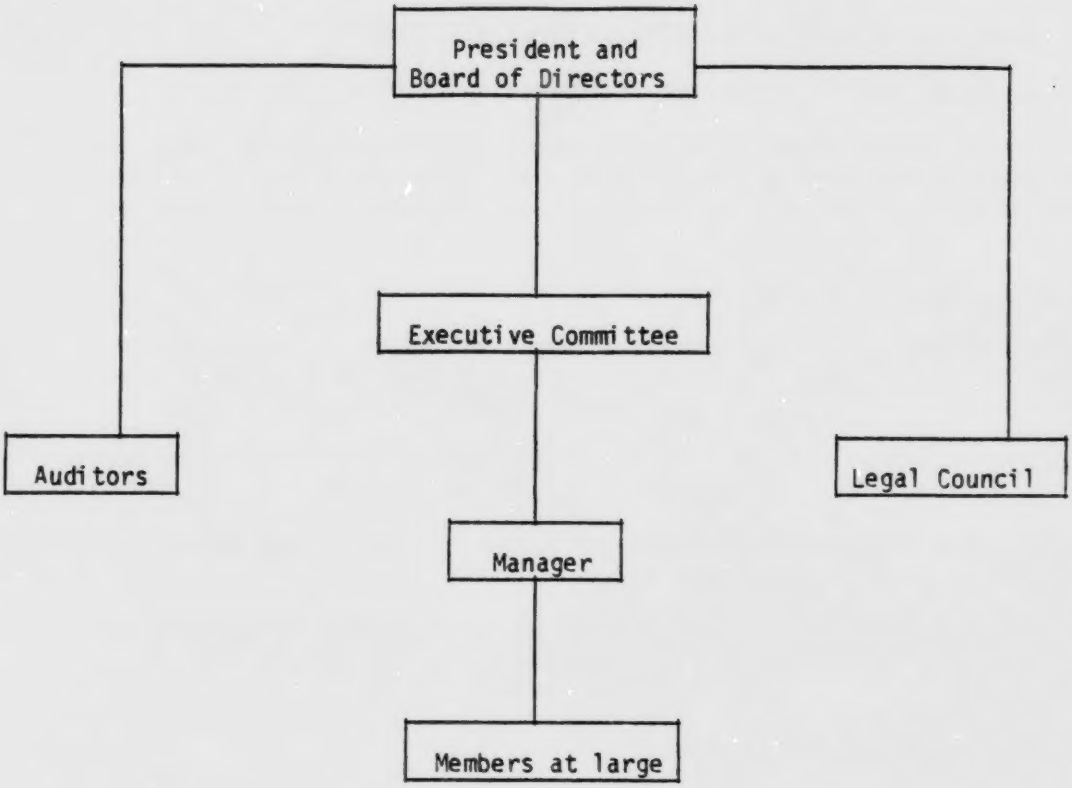
1. The association shall assist and encourage wise fur management techniques and work with and support Governmental organizations, programmes and other trappers to encourage and develop long term protection and cultivitation of furbearing animals.

2. The association shall encourage the practice of humane trapping while studying, practicing and promoting the use of the most humane fur harvesting devices and techniques available.

3. The association shall work with Governmental agencies to provide a sufficient land base and suitable habitat for furbearing animals so as to support and maintain a viable fur industry.

4. The association shall work with any concerned group or agency on a program of information directed at the general public and designed to foster knowledge and understanding of the reasons and needs of the trapping industry across North America.

ORGANIZATIONAL STRUCTURE OF KEEWATIN HUMANE TRAPPERS ASSOCIATION


President and Board of Directors
Executive Committee
Auditors
Legal Council
Manager
Members at large

CANADIAN TRAPPERS FEDERATION

The Canadian Trappers Federation is an umbrella organization having representatives from provincial trappers associations and represents trappers's interests on the national level. The goals, aims and purposes of the CANADIAN TRAPPERS FEDERATION, as set down in the Constitution and by-laws are as follows:

1. To act in the public interest as a source of information covering furbearing animals of Canada.
2. To encourage the conservation of furbearing animals as a renewable natural resource.
3. To improve the welfare of the trapper by educational means.
4. To demonstrate humane methods of harvesting.
5. To assist in the formation of Provincial and Territorial associations.
6. To carry this program to individual trappers in all areas of Canada.
7. To promote the sale of Canadian Wild Furs in all markets of the world.
8. To study the feasibility of establishing marketing facilities in centralized regions.

NOTE: For the names and addresses of officers of the Canadian Trappers Federation and representatives of affiliated associations, refer to the pocket page in the back of this manual.

Aboriginal Trappers Federation of Canada

In 1984, the membership of the Aboriginal Trappers Federation of Canada was strengthened by a concerted effort to make their problems known.

Any aboriginal group of people can become members of the A.T.F.C. by sending:

(a) a letter of support

(and)

(b) the name of a contact person from a local, band council, trappers, hunters or fishermens association as well as regional organization, community council, Provincial/Territorial organization or a national aboriginal organization,

(and)

(c) a membership fee of $50.00 from the organization.

The contact person will receive information and be able to attend meetings in relation to trapping, fishing, hunting and gathering issues.

Individual membership cards will be issued for $2.00 - one half will be retained by the local organization and one half will be sent to A.T.F.C.

Some of the objectives of A.T.F.C. are as follows:

1. to protect the interests of aboriginal trappers, hunters, fishermen and gatherers
2. to educate the public with regard to the effort of animal rights movements including Greenpeace when our rights are threatened
3. to work with the membership in liaising with the renewable resource sector
4. to act as a service organization to the membership and to our political leaders
5. to serve as a native trade association for the benefit of aboriginal businesses in Canada and abroad.

Bob Stevenson
Executive Director
Aboriginal Trappers Federation of Canada
450 - Rideau St., 4th Floor
Ottawa, Ontario
K1N 5Z4
Telephone (613) 238-3511
(613) 445-5459

Trapping Industry Organization

There are other organized bodies which perform a variety of functions at various levels of the fur industry, such as the Fur Council of Canada and the International Fur Trade Federation which promote the fur industry and markets in Canada and abroad. There are associations for tanners, dressers, dyers, furriers, auctioneers, fur breeders, etc. which represent the interests of these respective groups. But probably the most important of these groups for trappers to be aware of is the recently formed Fur Institute of Canada.

The Fur Institute of Canada

The Fur Institute of Canada was formed (fall, 1983) in response to pressures against the trapping industry at home and abroad.

The Insitute has three primary objectives which are:

1. To continue the research and development of humane traps and trapping systems, ie: to carry on the work initiated by the Federal Provincial Committee for humane trapping.*

2. To promote or carry out public information or education programs nationally and internationally in order to enlighten the public about the true nature of the fur industry.

3. To promote and enhance trapper education programs, in order that trappers can keep abrest of new developments and put new methods into practice.

Refer to the chart on the following page for the structure of the Fur Institute.

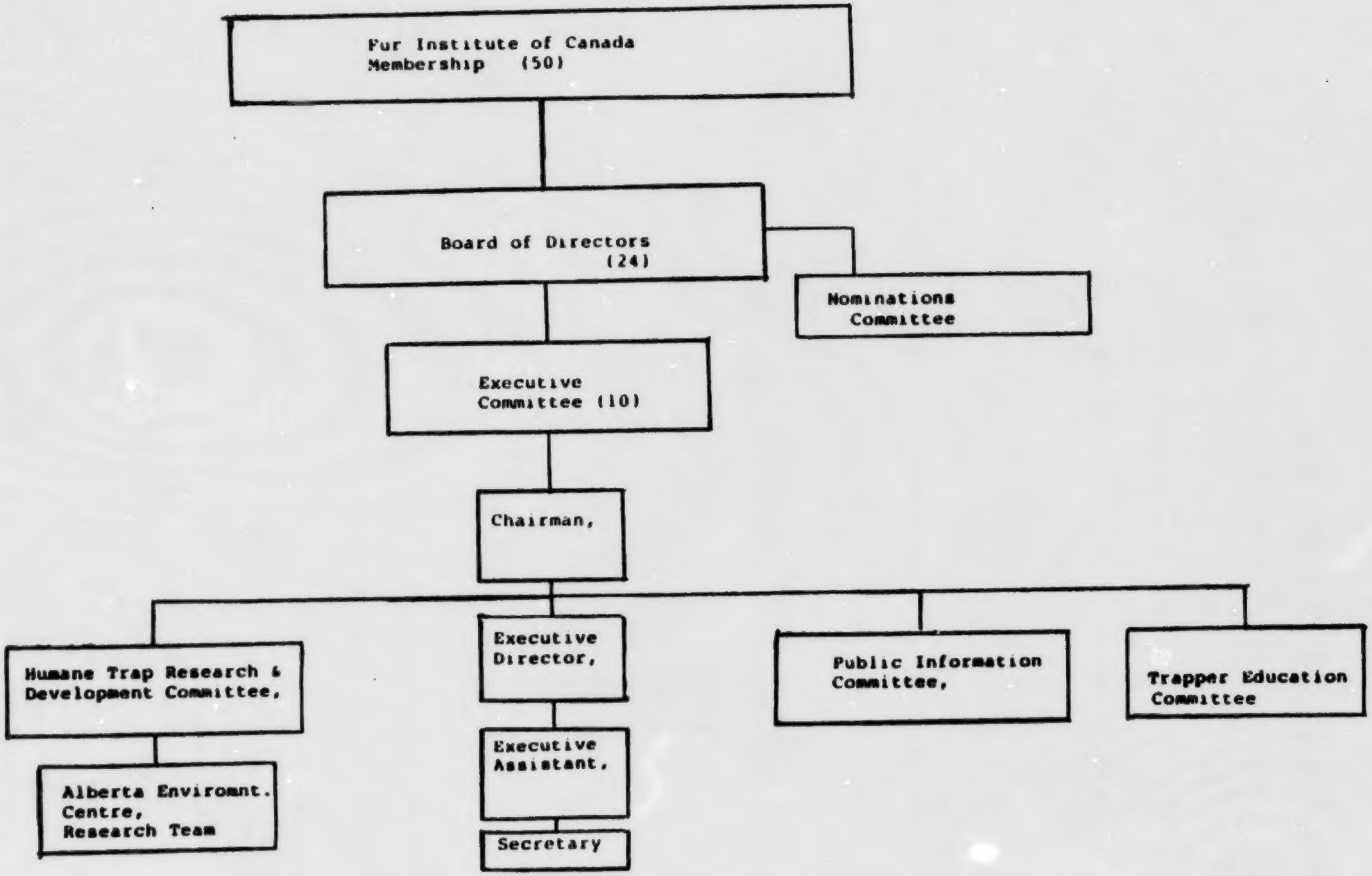
*The Federal-Provincial Committee for Humane Trapping (FPCHT)

This was a committee formed from the Federal-Provincial Wildlife Conference, which is an annual meeting with a 40 year history, where senior wildlife administrators meet.

The committee consisted of eight members plus a coordinator, and was formed in 1973 "to coordinate the independent work being done on humane trapping and to encourage new joint initiatives" and "within a maximum of five years, to recommend to the provinces, traps and trapping techniques for all fur bearers which will, insofar as the state of the science or the art will allow, provide the greatest humaneness in holding or the killing of furbearers. The F.P.C.H.T. also solicited ideas for new trapping devices and collected information from all over the world on traps and trapping. The committee performed research into pheromones (ie: the scent factor by which animals communicate chemically), underwater trapping of aquatic species and how variations in climatic conditions may affect trapping devices. The committee published a final report and disbanded in 1981.

FUR INSTITUTE OF CANADA

Organization Chart


Fur Institute of Canada
Membership (50)
Board of Directors (24)
Nominations Committee
Executive Committee (10)
Chairman,
Humane Trap Research & Development Committee,
Alberta Environmt. Centre, Research Team
Executive Director,
Executive Assistant,
Secretary
Public Information Committee,
Trapper Education Committee

Trapper Education

Rational

The trapping industry is changing. New, improved trapping devices and techniques are now available or are being developed. Management regulations are constantly being updated and there is mounting pressure from humane groups and the general public for trappers to adopt more humane methods and to manage wildlife more efficiently. Trappers themselves, trapper organizations and the trapping industry have contributed greatly to these changes.

Learning and employing new, more efficient traps and techniques in trapping, as well as better fur handling and marketing techniques can greatly enhance revenues to the industry as a whole, and to the general economy of the province. This, in turn, will act to ensure the continued viability of the industry and to preserve the trapping lifestyle that so many enjoy.

Also, people wishing to enter the trapping trade for the first time have frequently experienced difficulty in finding out the information they needed to know in order to succeed. Often, learning was by trial and error or limited to information gained from only a few individuals. This was a slow and inefficient process.

Hence, the need for Trapper Education programs to upgrade trapper's skills and knowledge, to keep them informed of new developments and to provide a means to efficiently train new recruits to the industry.

Programs

Although no organized trapper education existed prior to 1975, in Alberta, a form of trapper education existed between trappers, within organized trapper associations and between Fish and Wildlife Officers and trappers in some areas.

The need for government involvement in trapper education was recognized in the early 1970's, when trappers themselves voiced their interest in such a program. In 1973, the Fish and Wildlife Division became more involved in the wild fur industry and began to explore the possibility of setting up a program in Alberta as well as obtaining information on other programs in Canada. During the summer of 1975, the Department of Advanced Education and Manpower offered their facilities, (Alberta Vocational Centres at Lac La Biche and Grouard), expertise and financial assistance towards a trapper education program. In November of 1975, the Alberta Trapper Education and Wild Fur Upgrading Program became a reality. The first program involved a well known trapper training instructor from Ontario, Mr. Ralph Bice. As Mr. Bice had been involved in training programs in Ontario for many years, it was felt that his knowledge as an instructor would be valuable in our first program. With the cooperation of the Alberta Vocational Centre (A.V.C.), the Alberta Trapper's Association and the Fish and Wildlife Division, the first program was a great success. It began an increasing trend in activity related to upgrading the fur industry in Alberta.

The initial program held in Alberta was three weeks long. This course evolved into a four week course, which became known as the "Advanced Trapping and Conservation Course" and was held annually up to 1984. In 1985, the Advanced course will be offered in a shorter (10 day) format. Since 1978/79, a one week basic course has developed and is held in various locations throughout Alberta and it has been the main program readily available to trappers.

The two programs differ in that the short basic course gives an introductory coverage of the most important subject areas relating to trapping, but the time available for direct student participation is limited. The advanced course offers participants a more indepth coverage of some of the same subject areas as well as some additional subject areas and considerably more fieldwork and "hands on" experience.

This year (1985/86), a new course called "The Western Canadian Trapper Instructor Training Course" will be offered to train instructors for trapper education programs. This will be a four week program. The course will upgrade and standardize trapping skills to the level required for instruction as well as providing training in general instructional techniques.

In Alberta, instructors will also attend a special instructional techniques course. This is a six day program which will give instructors more specific training in the techniques of instructing the basic courses.

At the advanced course and the instructor training courses, new instructors will undergo internship training at their first course. In addition to these courses, a short instructor orientation is held at the start of each year. An instructor's year end windup is also held at the end of the programing season.

Trapper instructors employed by the program are all experienced trappers and have taken the extensive training outlined above. Other instructors or resource persons used in the program are highly trained professionals or experts in their field.

Trapper education is regarded as important and necessary in many other regions. Every province and territory in Canada and many states in the United States currently have programs.

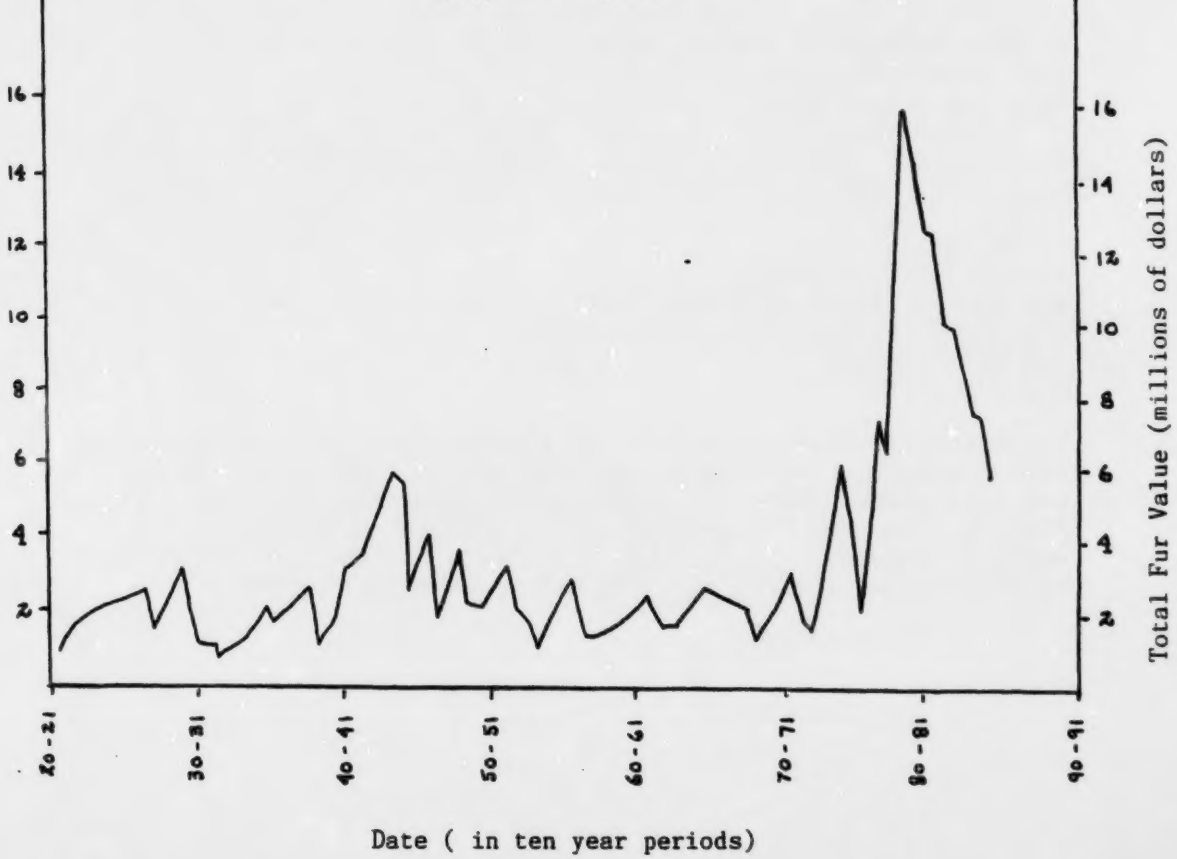
FUR PRODUCTION & SOCIO-ECONOMIC BENEFITS

Trapping has long been an integral part and desirable tool of wildlife management as well as an intrinsic part of Canadian heritage. Many Albertans are still dependent upon the wild fur industry for their livelihood, for either a sole or supplementary income. Throughout the settled parts of Alberta, the trapping of wild fur provides an additional income for the part-time trapper as well as serving as a means of removal or control of problem wildlife species.

Wild fur production has remained fairly stable over the years. From time to time, increases in numbers and species of animals harvested indicate increasing or peaking population levels of these species. In Alberta, no species of furbearing animal is in danger of extinction by trapping. Changing demands by the public and the manufacturing and design industries cause corresponding changes in the value of furs.

Changing trends in fashion requirements must be catered to by fur dealers, fur auctions and brokers.

TOTAL ANNUAL FUR VALUE CHART
1920/21 - 1983/84



The use of fur has generally depended on fashions and brands established in fur centres far beyond the area where fur is harvested. As such, trends in the use of fur change over a period of time and what is desirable today may be out of style tomorrow. Even in the brief history of Alberta, such trends are evident. Some of the long hair fur, for example, was very desirable during the first thirty years of this century, then gradually decreased and reached very low dollar values during the period from 1945 - 1965. It then started rising and again reached a peak recently. Various demands have changed the use of fur; for example, the rabbit fur production reached peaks of over 5.5 million when its hair was used for making felt during the war. Today, wild rabbit furs are uneconomical to produce, however, domestic rabbit fur is used extensively. Thus, the fur industry is a fluctuating industry and has been such since its very beginning. However, today's trappers do have various fur outlets which appraise them of future fur demands and therefore, they can adjust their trapping accordingly. Trappers must manage their trapping activities to not only take advantage of high fur prices but must harvest all species according to the availability of them on their areas. The fluctuating demands, at times, create difficulties to those managing furs since it is their main objective to assure an optimum number of animals are available to trappers on a sustained yeild basis.

Alberta has consistently produced the third largest dollar value of fur on a per province basis in Canada; it is only exceeded by Ontario and Quebec. There have, however, been times when Alberta produced upwards of 25% of Canada's lynx fur. Since the 1940 - 1941 season when the fur value reached 5.5 million, the annual value to trappers has fluctuated from a low of just over 1.0 million in the 1956 - 1957 season, to over 15 million in 1979 - 1980. During this period, the following animals accounted for the major production on an annual basis:

Beaver for 15 years
Muskrat for 12 years
Squirrel for 5 years (second largest fur value in 11 years)
Lynx for 4 years
Coyote for 5 years
Mink for 2 years

The overall number of registered trappers has been relatively stable since the early 40's and remained the same (3000) during the past years. There are approximately 1700 trapping areas in Alberta. In 1981, government policy changed as it relates to resident trappers. Since then, the overall number of resident licences issued annually has remained at approximately 5000.

Considering that children and spouses are permitted to trap under licences, it is estimated 20,000 people are involved in trapping wild fur in Alberta.

In addition to the producers (trappers), in Alberta, the fur industry consists of fur dealers and buyers, taxidermists, tanners and furriers who are involved in handling fur. During the 1982 - 1983 season, 134 licences were issued to fur buyers, 257 taxidermist licences, 20 tanners and 4 furrier licences were sold. Since many of the above employ people, one can readily see the economic benefits accrued to Alberta from the fur industry. Unfortunately, no large tanning firms or manufacturers of furs exist in Alberta, however, these benefits would go to the province having this capability.

As for the producer's needs, the variety of equipment and supplies is very extensive. This can amount to considerable annual dollar value, especially when one considers that future social demands may require considerable investment by trappers to acquire new traps, etc.

It is esimated that half of our trapping areas are held by Indian or Metis trappers. These people often live in remote areas where little or no other meaningful employment exists. Thus, if we were to lose out on trapping, they would require some social assistance which would compound the matter. Furthermore, one must keep in mind that trapping is a traditional way of life with many of our native people. They still use furs quite regularly for clothing, craft work and ceremonial purposes. Their cultural interests are deeply rooted in furs and their entire life style promotes the aspect of hunting. To deprive them of this privilege could have disasterous impacts.

In conclusion, it is estimated that the fur industry in Canada accounts for approximately $600,000,000 worth of commerce and directly benefits Canada with a trade balance of over $40,000,000 annually. It is estimated some 90% of the fur produced is exported. Very little money is actually spent directly on the resource, other than for administrative costs involved with the government, thus the fur industry has a great economic impact on all of Canada.

ALBERTA

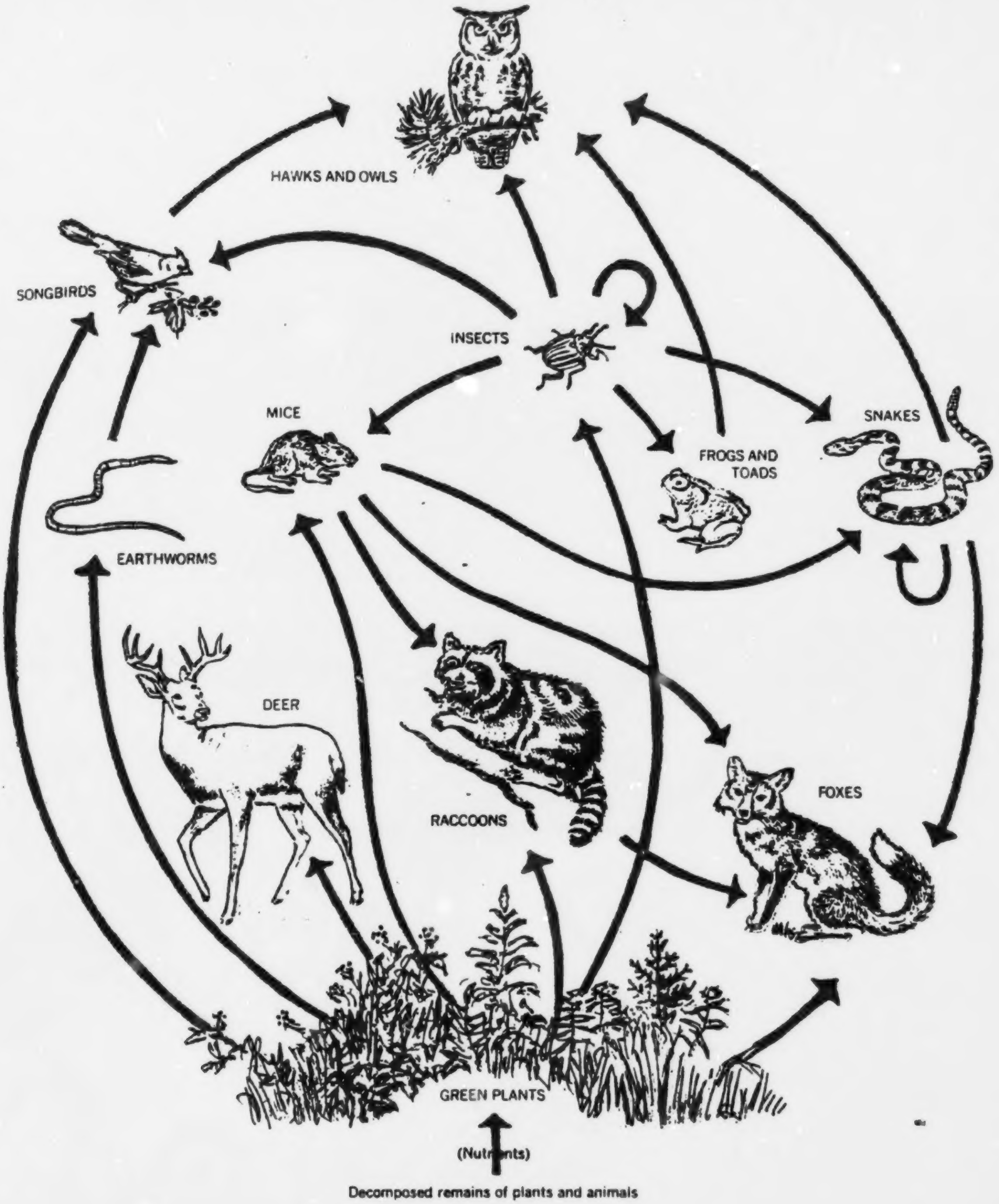
1983-84 FUR PRODUCTION RECORDS

	# of Pelts	Mean Price Per Pelt	Total $ Value
Badger	1,011	$ 37.09	37,497.99
Beaver	57,537	20.74	1,193,317.38
Bobcat	30	205.00	6,150.00
Coyote	31,445	48.05	1,510,932.25
Ermine/Weasel	15,828	2.34	37,037.52
Fisher	3,590	128.00	459,520.00
Fox (Silver)	61	68.56	4,182.16
Fox (Cross)	445	91.52	40,726.40
Fox (White)	11	23.09	253.99
Fox (Red)	2,021	45.21	91,369.41
Lynx	3,054	347.27	1,060,562.58
Marten	8,074	49.40	398,855.60
Mink	4,549	26.45	120,321.05
Muskrat	98,819	3.25	321,161.75
Otter	236	37.24	8,788.64
Raccoon	31	18.36	569.16
Skunk	19	4.00	76.00
Squirrel	337,616	1.04	351,120.64
Wolf	494	78.50	58,779.00
Wolverine	49	192.39	9,427.11
		TOTAL	$5,696.214.71

Registered Trappers - 2972

Resident Trappers - 4987

Biology of The Furbearers


HAWKS AND OWLS
SONGBIRDS
INSECTS
MICE
SNAKES
FROGS AND TOADS
EARTHWORMS
DEER
RACCOONS
FOXES
GREEN PLANTS
(Nutrients)
Decomposed remains of plants and animals

A Food Web in the Forest

The plants and animals in a community are linked by interlocking food chains that make up a food web. All food chains are based on green plants, which manufacture the energy-rich food materials upon which all other organisms depend. Some animals, the herbivores, feed directly on green plants. Carnivores feed on the herbivores or other carnivores, and omnivores feed on both plants and animals. The diagram shows some of the major links in one type of food web. Insects→mice means insects are eaten by mice. The arrow indicates the direction in which energy flows.

Lesson Objectives

To provide information to the student on:

1. Basic Biology of the most important Furbearers found in Alberta, which includes all 18 furbearing species.
2. Each species' characteristics, reproduction, habits, food, range, habitat and economic value.
3. Parasites and diseases of furbearing animals that can infest man.

Biology of The Furbearers

This is simply the study of or body of knowledge pertaining to all aspects of the life history of an animal, including its basic characteristics, habits, food, reproductive cycle, range, habitat requirements, etc.

This manual provides information on the basic biology of the 18 most important fur bearing animals found in Alberta. These fur bearers are all mammals (animals which feed their young on milk) and can be divided into two major catagories - the carnivores or meat eating animals, which include the dog, cat, weasel and raccoon family, and the rodents, which include the beaver, muskrat and squirrel (see chart for more detailed classification and characteristics).

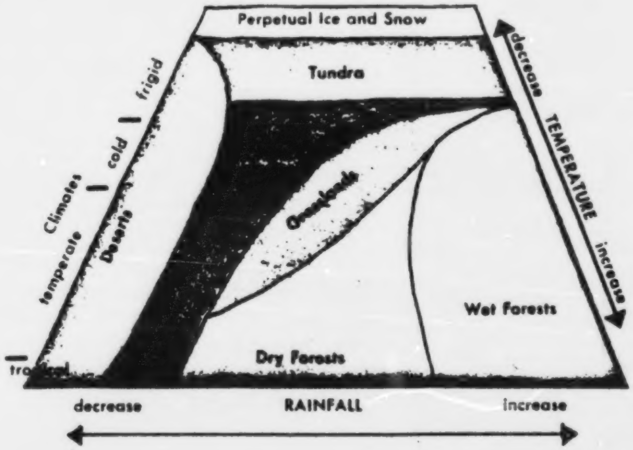
Trappers can learn a great deal about the lives and habits of wildlife from first hand observation, but there is also much valuable information which can be gleaned from the scientific study of these animals.

Trappers should take advantage of this knowledge, for the more a trapper knows about the lives of the animals he traps, the more effectively he will be able to trap and wisely manage them.

Ecology of the Fur Bearers

Ecology is the study of the inter-relationships between different species of living things and their environment.

It is important for the trapper to understand a few basic concepts of how animals, plants and the environment affect each other if he is to wisely manage his/her trapline.

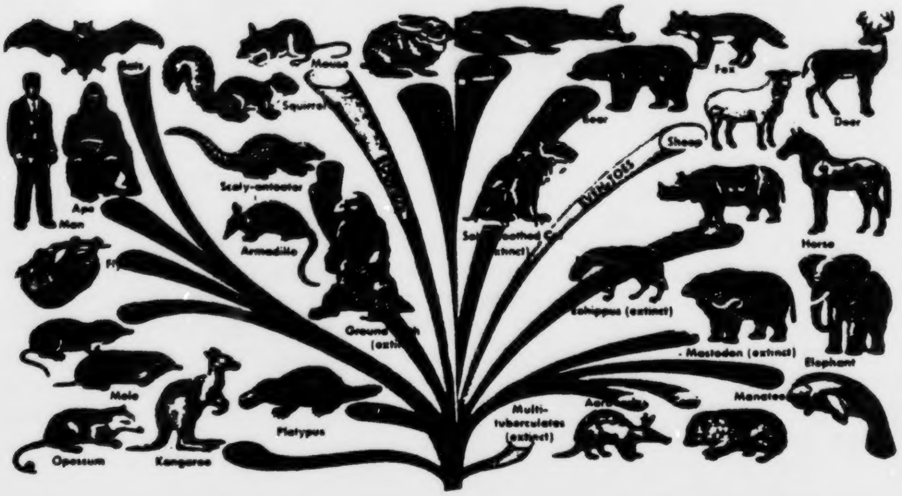

Perpetual Ice and Snow
Tundra
Grasslands
Deserts
Wet Forests
Dry Forests
Climates
frigid
cold
temperate
tropical
decrease
TEMPERATURE
increase
decrease
RAINFALL
increase

BIOMES

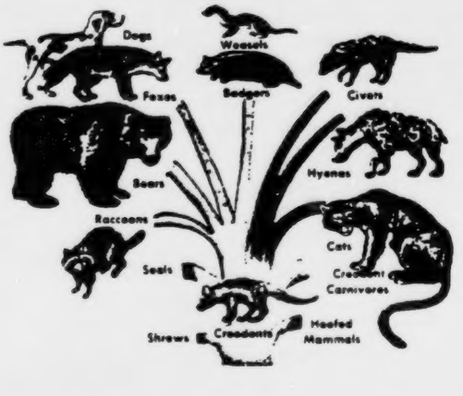
CLASSIFICATION AND CHARACTERISTICS OF FURBEARERS

Classification	Characteristics
Animals	Are mobile Cannot produce their own food
Mammals	Have mammary glands (ie: feed young on milk) Have hair Have backbone and internal skeleton Are warm blooded
Carnivores	Meat eaters Have carnasial teeth (shearing)
Dog Family - wolf - fox - coyote	Large canines (eyeteeth) Long nose, well developed sense of smell Long legs, swift runners, hunt by chasing
Cat Family - lynx - bobcat	Short nose, poorly developed sense of smell Large eyes, well developed sight Well developed claws Hunt by stealth and pouncing
Weasel Family - weasel - mink - marten - skunk - fisher - wolverine - otter - badger	Short legs, long bodied Well developed odor producing glands Most hunt by ambushing prey in dens Some scavenge, burrow or fish
Raccoon Family - raccoon	Ringed tail, short legged, flat footed, with handlike front paws, rotund body
Rodents - beaver - muskrat - squirrel	Have large, sharp incisors (front teeth Are Vegetarian Have high reproductive rate (produce many young)

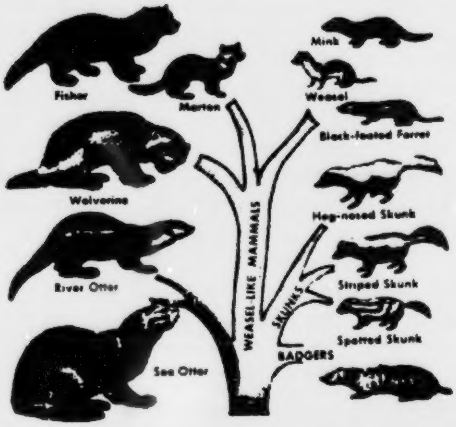
MAMMALS OF TODAY


Bats
Mouse
Squirrel
Man
Ape
Scaly-anteater
Armadillo
Ground
(exti
Mole
Opossum
Kangaroo
Platypus
Multi-
tuberculates
(extinct)
Bear
Fox
Deer
Sheep
Horse
Eohippus (extinct)
Mastodon (extinct)
Elephant
Manatee

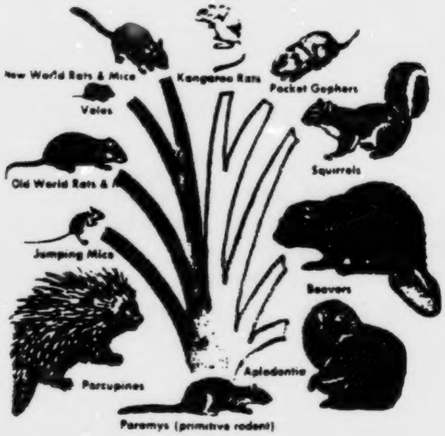
CARNIVORES

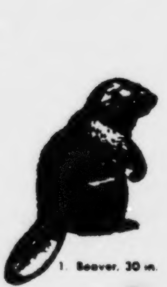

Dogs
Foxes
Weasels
Badgers
Civets
Bears
Hyenas
Raccoons
Cats
Seals
Creodont
Carnivores
Shrews
Creodonts
Hoofed
Mammals

THE WEASEL FAMILY


Mink
Fisher
Marten
Weasel
Black-footed Ferret
Wolverine
Hog-nosed Skunk
River Otter
WEASEL-LIKE MAMMALS
SKUNKS
Striped Skunk
Spotted Skunk
Sea Otter
BADGERS

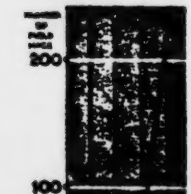
RODENTS,


New World Rats & Mice
Kangaroo Rats
Pocket Gophers
Voles
Squirrels
Old World Rats & M
Jumping Mice
Beavers
Porcupines
Aplodontia
Paramys (primitive rodent)


1. Beaver, 30 in.

2. Field Mouse, 6 in.

Reproduction potential of a pair of field mice



ALBERTA LIFE ZONES

All forms of life require certain conditions in which to live and successfully reproduce. These conditions are supplied by a plant or animal's environment. Every environment is created by the interaction of air, soil, water, plants and animals, under the influence of climate and other factors. There are many possible combinations and variations of these factors and thus environments can vary widely from place to place. As environments vary, so do the kinds of plants and animals that are adapted to live in them.

Alberta is a large province with a total area of approximately 660,000 sq. km (255,000 sq. mi.). A major characteristic of the province is its diverse topography, ranging from flat, sometimes featureless plains to the high mountains of the west. These differences help create a variety of environments, from the prairie steepe in the southeast corner of the province to the mixed-wood, boreal forest of the north, and the treeless alpine of the Rocky Mountains. This range of environments can be divided into major "life zones" that are characterized by particular groupings of plants and animals. The following are general descriptions of each major life zone in Alberta.

Alpine - This zone is only found in the highest Rocky Mountains where it is too cool for trees to grow. In Alberta, timberline(upper altitudinal limit of tree growth) runs irregularly from 1800 to 2400 m (6000 - 8000 ft.) above sea level. Timberline drops progressively to the north until it meets the treeless tundra of the arctic. Permanent snowfields and glaciers are common in this zone. Plant life is low lying and generally sparse, being found in rocky habitats, moist meadows, and along stream courses.

Montane - Timberline forms the upper limit of this zone. The zone is characterized by forests of coniferous trees, such as Engelmann spruce and subalpine fir at higher elevations; and white spruce and lodgepole pine at lower elevations.

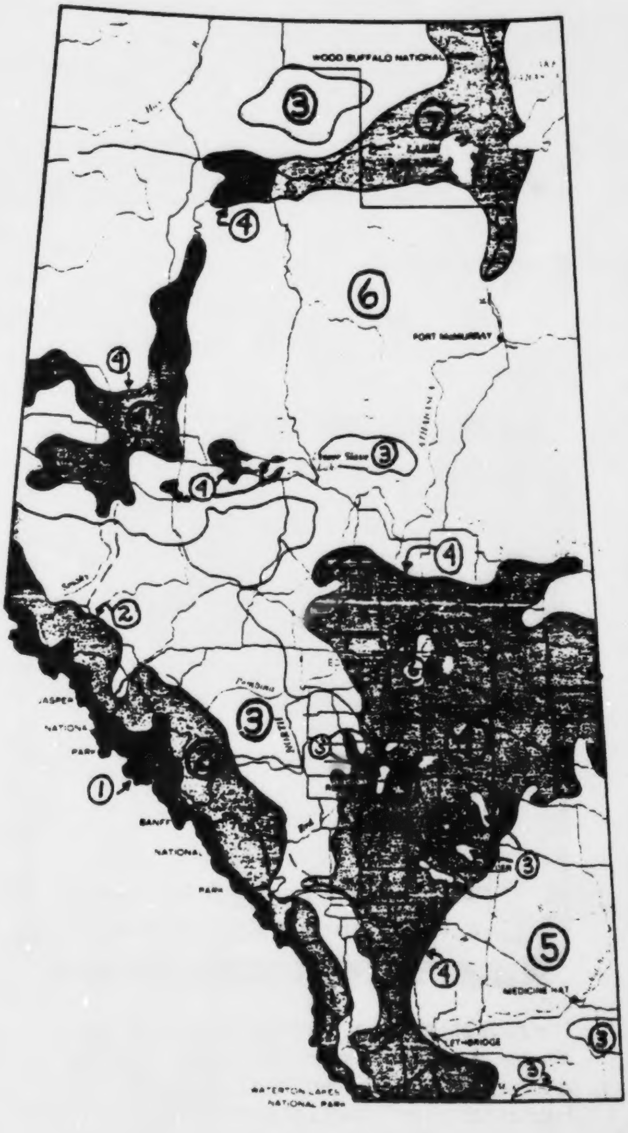
Foothill - This zone is similar to the lower portion of the montaine zone, except that it is generally drier, receiving less precipitation than areas closer to the high mountains. Forests of white spruce, lodgepole pine, and poplar are often broken by tracts of grassland. This mosaic of vegetation provides good habitat for a variety of wildlife.

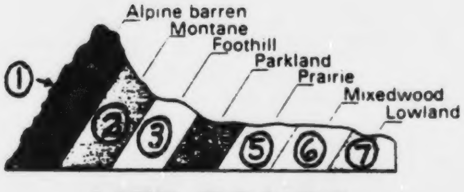
Parkland - This south-central belt is a transition between the mixed-wood forests to the north and west and the drier prairies to the south and east. Stands of poplar are interspersed with grasslands and meadows, giving areas in the zone a park-like appearance. This is rich agricultural land with black soils and ample rainfall. Mixed farming has altered much of the original vegetative cover. Small islands of this zone occur in the Peace River region.

Mixed-Wood - Usually called the boreal forest, this zone forms a continuous belt from Newfoundland and Labrador to Alaska. In Alberta, the forests are characterized by white and black spruce and jack pine. These coniferous stands are often interspersed with deciduous poplar and birch - hence the name "mixed-wood."

Prairie - The most striking feature of this zone is the absence of trees, except in river valleys and coulees where moisture is suf-ficient to support cottonwood poplar and other species. Grassland and sagebrush plains predominate. Much of the region is ranching country.

Lowlands - This zone is basically muskeg and bog. Black spruce and tamarack are common tree species associated with this moist environment.

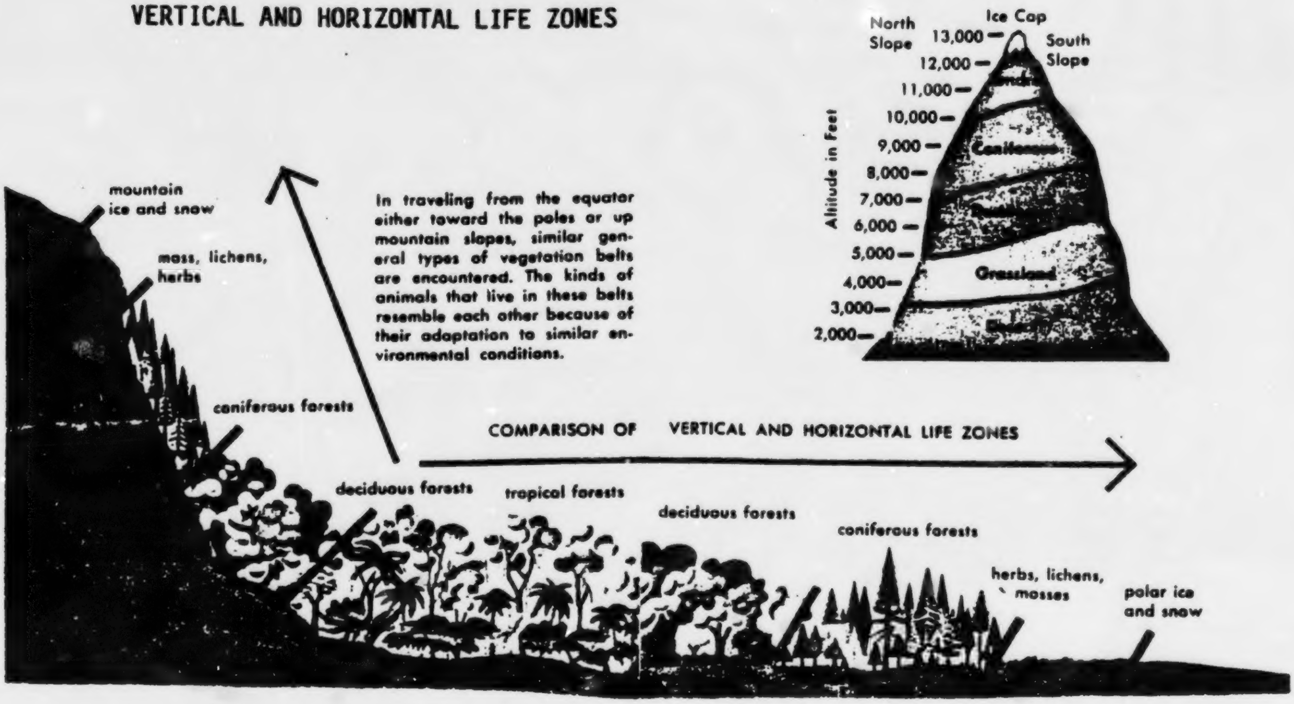

WOOD BUFFALO NATIONAL
③
⑦
④
⑥
FORT McMURRAY
④
③
④
④
②
JASPER
NATIONAL
PARK
③
③
①
BANFF
NATIONAL
PARK
③
⑤
④
MEDICINE HAT
③
LETHBRIDGE
③
WATERTON LAKES
NATIONAL PARK


Alpine barren
Montane
Foothill
Parkland
Prairie
Mixedwood
Lowland
①
②
③
⑤
⑥
⑦

LIFE ZONES

The biological community and the non-living environment

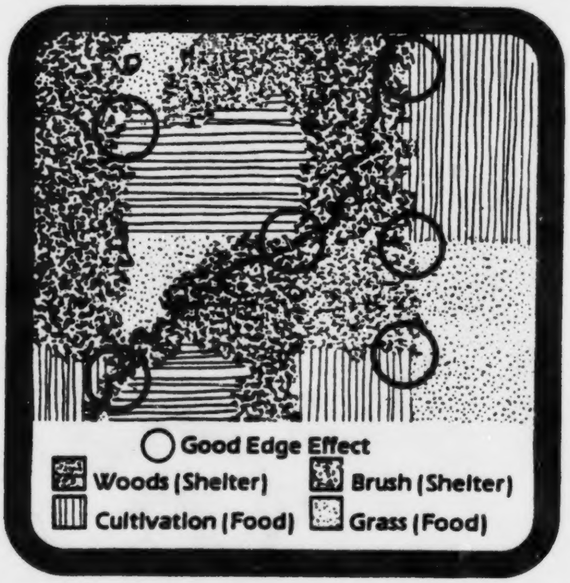
VERTICAL AND HORIZONTAL LIFE ZONES


North Slope
Ice Cap
South Slope
13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
Altitude in Feet
Conifers
Grassland
mountain ice and snow
moss, lichens, herbs
coniferous forests
COMPARISON OF VERTICAL AND HORIZONTAL LIFE ZONES
deciduous forests
tropical forests
deciduous forests
coniferous forests
herbs, lichens, mosses
polar ice and snow

In traveling from the equator either toward the poles or up mountain slopes, similar general types of vegetation belts are encountered. The kinds of animals that live in these belts resemble each other because of their adaptation to similar environmental conditions.

Edge Effect

The edges or borders or habitats overlap each other and it is here that change in vegetation is most noticeable.


○ Good Edge Effect
Woods (Shelter)
Brush (Shelter)
Cultivation (Food)
Grass (Food)

The zone of change or transition offers the greatest mixture of habitat which in turn is utilized by a high diversity of wildlife species. Ideally the best wildlife habitat has an abundance of edge arranged to provide for feeding, escape, shelter, resting and drinking all within close proximity.

SHELTER, or Cover, for wildlife refers to places where animals can retreat and feel safe. In these places they can eat without being disturbed, breed and rear their young, and either play or rest.

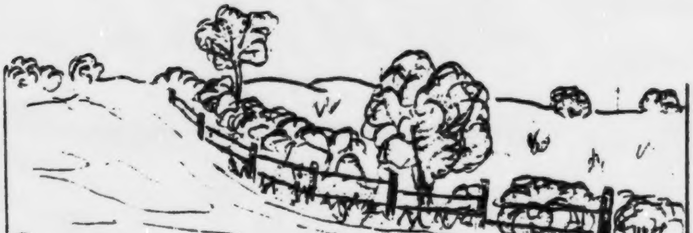
SUITABLE SHELTER differs for each species and may vary also with the season. For some kinds of wildlife, it may be necessary to cut or burn trees so that there are open, shrubby areas; for others, perhaps trees must be planted, some allowed to grow taller than others, or dead trees left among the living. Specific needs are learned by observation and research.

In farm lands, patches of crops may be left unmowed and unharvested as wildlife food and cover. Long stretches of uncleaned fence rows can become protected travel lanes rather than dangerous open areas. Brush piles can be located with open "runways" under them.

EDGES and Ecotones are those places where there is a mixture of two or more plant types. Many kinds of wildlife prosper in direct relation to the amount of edges available. Whitetail deer, for example, increased in numbers with the cutting of great forests and the creation of clearings or open areas. Bison, in contrast, thrived in a nearly one-plant environment—the grasslands.

Deep forests do not support as large or varied populations of wildlife as occur along their edges. The animals most benefited by edges are those that move relatively short distances, keeping their food and shelter within close proximity.

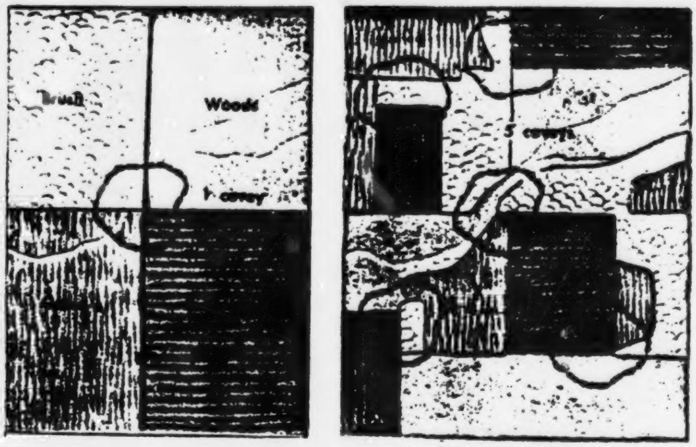
The broad, brushy fencerow provides food and cover for wildlife; the clean row has little value to wildlife.



LIMITING FACTORS are those important to the survival and productivity of a species. When the limiting factor's availability is either below the critical minimum or in excess of the critical maximum, population growth is halted. These limits of tolerance vary with the species for different kinds of factors, but in each case, it is the limiting factor that must be determined by the wildlife manager and then controlled to increase or improve the population of a wildlife species.

DETERMINING THE LIMITING FACTOR in a complex ecosystem is sometimes difficult, though often it is obvious and easily recognized. Bobwhites, for example, may be extended in their northward range in some areas simply by making certain they are provided with food during times when the land is covered with deep snow. Or bobwhites may be encouraged to move into open country by supplying brush for cover. In both cases it is a matter of correcting the greatest lack to assure an increase in the population. Some other factor then becomes limiting, challenging the game manager to discover and correct it as he works to attain the maximum possible game harvest.

The number of "edges" can be a limiting factor. Note that by increasing the "edges" more coveys of quail exist in same area.



Limiting Factors

Carrying capacity of a habitat is determined by any one of a number of factors. Changes in any of these individual factors may result in either an increase or a reduction of the carrying capacity.

Food:

Each wildlife species eats specific plants or animals, regardless of others that may be available. Some foods have more nutritional value than others which may vary according to the time of year. For this reason, both the quantity and the quality of food may limit the abundance of the wildlife dependent upon it.

Cover:

Wildlife needs cover to shelter and protect it while feeding, sleeping, breeding, roosting, nesting and travelling, or to escape from predators. Cover can take many forms, such as vegetation, burrows, rocks or other features. If a particular kind of cover is in short supply, it may also limit wildlife populations.

Water:

All wildlife needs water. Sources of water are lakes, ponds, streams, dew, snow, and succulent (juicy) vegetation. Some animals can also use metabolic water (water produced by chemical processes in the body). Water may be required only in small amounts for drinking, or in the case of fish and mammals like beaver and otter, in much greater quantities as the principle component of their habitat.

Space:

Wildlife needs space if it is to survive. Overcrowding leads to severe competition for the habitat components essential to life. For this reason, only a specific number of animals can live in an area (carrying capacity).

In addition, wildlife may have territorial requirements associated with mating and/or nesting. Many species of wildlife occupy a home range and spend their entire lives within that range. In the case of white tailed deer, they rarely move beyond the 150 to 200 acres that comprise their home range.

Predation:

Any animal that eats another animal is a predator and the animals they eat are their prey. Predators are generally opportunists. Animals that are either very young or very old, or those weakened by disease, parasites or malnutrition are most likely to first fall prey to predators. When a prey population is low, the predator must find other species to prey on or its numbers will also be affected. Since most predators are well adapted to pursue and take only a few prey species, their numbers are very much dependent on the abundance of their specific prey. This has been dramatically demonstrated by the relationship between lynx and varying hares over a number of years.

Weather:

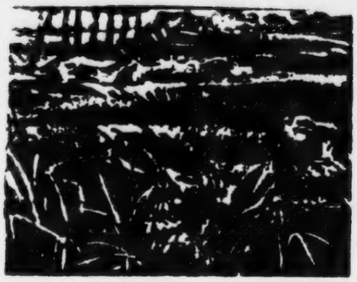
This is undoubtedly a major factor in determining population numbers. In Alberta virtually all other limiting factors are directly or indirectly influenced by climatic conditions. Climatic changes (weather) will obviously affect the cover, food, water, space and other components of habitat needed by wildlife.

Human Activities

Human activities such as alteration of habitat, killing of wildlife, impairment of reproduction by pesticides and harassment of wildlife can also serve to limit both numbers and kinds of wildlife in a given area.

Disease and Parasites

The effect of disease and parasites on a wildlife population may range from lethal to debilitating. At the extreme, die-offs of wildlife may occur, thus severely reducing population numbers. At lesser levels of infestation, reproductive capacity may be impaired and the ability of a population to sustain itself can be seriously affected.



Three or four rabbits (cottontails) can live comfortably on one acre. Each bobwhite, however, needs one or two acres.

A whitetail deer requires about 12 acres—more in some areas, less in others. A cougar or puma needs a thousand acres or more.

POPULATION is the basic commodity in wildlife management, which has as its objective obtaining the maximum harvest without disturbing the breeding stock of the species. This is accomplished by a manipulation of both the wildlife species and its environment or habitat.

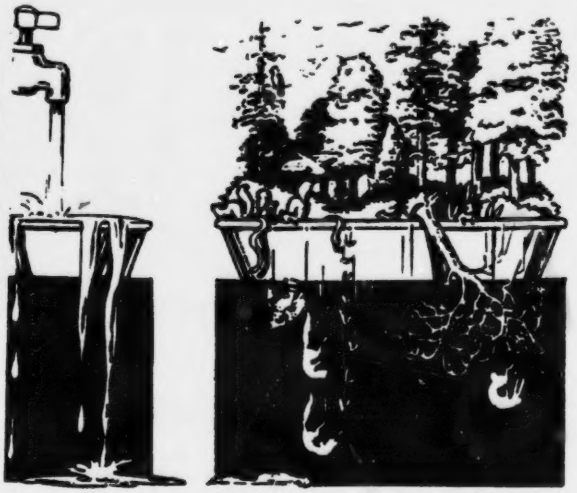
In all animals, for example, there is a maximum number, or density, of individuals that can occupy a particular amount of space. This is determined by the ability of the land to supply food, shelter, and whatever special requirements the species has. It is called the carrying capacity of the land. This is best measured at the time of the year when the needs of the species are greatest.

Even if food and cover are available in sufficient amounts, many animals will not exceed a particular population density. The controlling factor in these cases is apparently the animal's need for a particular amount of living space. This maximum density, or saturation point, may be greater or less than the carrying capacity that is determined by the land.

POPULATIONS are difficult to study. Many techniques have been developed for measuring and evaluating them. Improvements in the methods are made constantly. Usually faced with time limitations, ecologists rarely attempt a total census. Rather, they try to get a reliable estimate of the population by measuring samples. No matter how large, variable, or unevenly distributed the population is, the size and number of these samples must be statistically representative of the entire population.

MEASURING POPULATIONS consists of taking a census of the number of individuals and, equally important, collecting such data as age, sex, and condition of the population. These factors are important also in determining productivity.

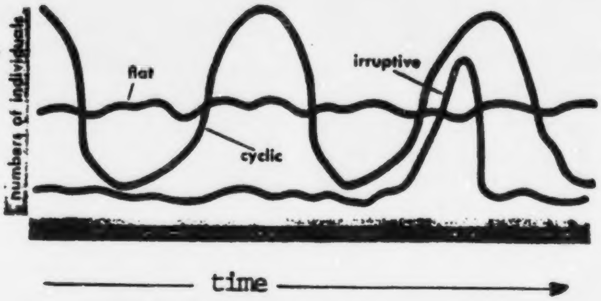
Several censuses at spaced intervals are necessary to learn whether the population is stable, increasing, or decreasing. Comparisons can be made by taking a census on two or more areas at the same time.



You cannot put more than two gallons of water in a two-gallon bucket. In the same way a wildlife habitat has a limited capacity for supporting the animals that live in it.

Carrying Capacity

Carrying capacity is the ability of a given habitat to support or carry a number of a particular wildlife species. The carrying capacity of habitat changes from place to place, from season to season and from year to year. When carrying capacity is at its lowest, usually in the critical winter period, those animals in excess of that number must either move to new habitat or perish.



Basic Types of Population Curves

CYCLIC POPULATIONS are those that fluctuate periodically even when environmental conditions remain essentially the same. These are not to be confused with the changes that occur in populations seasonally or with those that occur irregularly and irruptively due to great variations in rainfall, temperature, food, or similar physical or environmental factors.

Snowshoe rabbits provide a classic example of a cyclic population. With no change in its range, the snowshoe rabbit will rise from a low density of only one or two animals per square mile to a high of 1,000 or even 10,000 per square mile. The peaks and lows are usually nine or ten years apart.

Fluctuations in the population of the lynx, which preys on the snowshoe rabbit, follow the same pattern. The peaks and lows lag only slightly those of the rabbit. Similarly, the population of the arctic fox follows the four-year cycle of the lemming.

Among game birds, grouse are distinctly cyclic, reaching highs every nine or ten years. Bobwhites, in contrast, are not typically cyclic, though they do show a tendency toward cycles at the edges of their ranges.

Population Dynamics

A population is a group of animals of the same species that occupy a particular area. Dynamics refers to motion or change from within. Population dynamics, therefore, means the changes that occur in a population over time. The study of population dynamics helps explain why wildlife populations must be managed and how.

Two major factors affect the population dynamics of wildlife — the birth rate and the death rate.

Birth Rate:

Most wildlife species have a high birth rate. The smaller species of wildlife have higher birth rates than the larger species. The most important factors that affect the birth rate are:

— age at which breeding begins

— number of births per year for each breeding female (how many times each year young are born)

— number of young born per litter. How many at a time?

Death Rate:

The death rate of most wildlife species is high. The smaller species of wildlife have higher death rates than the larger species. The principal factors affecting the death rate of wildlife in Alberta are:

— availability of food and cover

— predation

— weather

— human activities

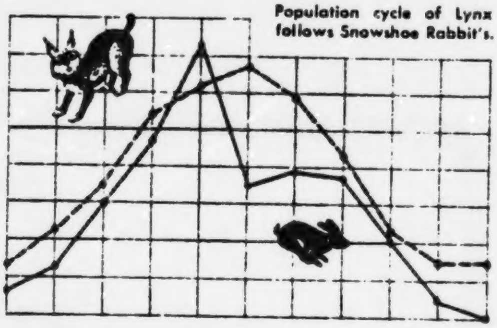
— disease and parasites

Note that these are generally the same factors discussed earlier in relation to limiting the carrying capacity of a habitat.

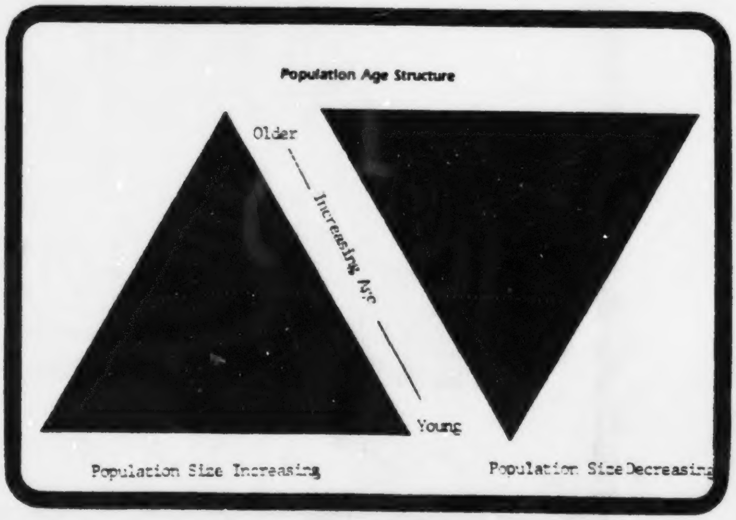
BREEDING POTENTIAL is the maximum possible increase in a population under ideal conditions. The breeding potential of a species always exceeds the carrying capacity of the land; food, cover, and other needs are never in adequate supply to support the number of offspring that are produced. Thus only a portion of the young survive in the area. The ultimate population is controlled by environmental factors that prevent growth of the population to its potential.

CALCULATING THE BREEDING POTENTIAL of a species requires a population census. The wildlife manager must also know the minimum breeding age for the species and the number of young produced per year. It is also helpful to know the maximum age at which young can be produced, usual length of life beyond breeding age, and mating habits of the species.

With these facts, the game manager then attempts to discover what factors can be altered to attain the maximum possible productivity. Sometimes a deficiency of food will lower the number of young produced or make the animals more susceptible to diseases, predators, or overharvesting. The basic problem may be poor soil in which food plants grow slowly and which lacks needed minerals and trace elements. By altering such factors, the breeding potential may be more nearly achieved.



Population cycle of Lynx follows Snowshoe Rabbit's.



Population Age Structure

Seasonal Changes:

In addition to the shifts and changes that occur from year to year, populations demonstrate an even greater seasonal fluctuation in numbers.

The most obvious change in population level occurs in the spring when the young of most wildlife species are born. The extent of this immediate increase in population level will depend on the number of breeding females as well as the number of young each female produces. Wolverine may bear two young while a coyote may bear eight or more new additions to the populations of that species. Not all young will survive, but understandably, populations reach their peak levels in the spring. At this time of the year — habitat is at its best, offering lush new vegetation for the herbivores or plant-eating forms of wildlife and large prey populations for the predators.

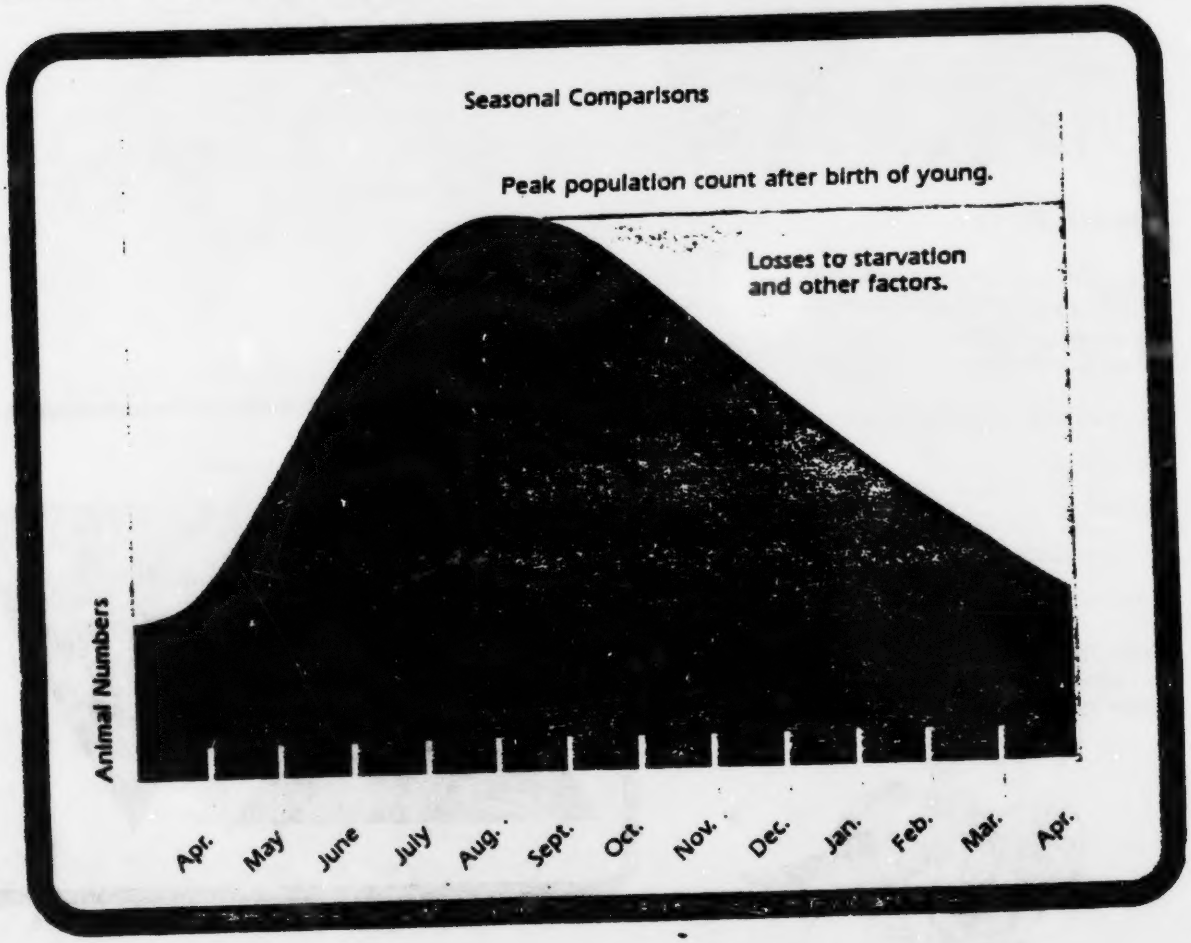
Though many animals will die over the spring, summer and fall, the winter period is the heaviest period of mortality.

In winter, the ability of habitat to support a large number of animals is reduced, often drastically. Those animals in excess of the number that the habitat can then support become surplus and may be lost to starvation and other factors. This annual mortality is part of the natural cycle. All that is required in nature is that a sufficient number of animals — the breeding stock — will survive until the spring and the cycle starts over.

Surplus wildlife cannot be stockpiled and saved for future use. A surplus is used or lost.

The average life span of most wildlife species is less than three years. All forms of wildlife are living creatures that will inevitably die and be removed from the population. This loss is replaced by the birth and addition of new individuals to the population.

Man's ability to control and manipulate both the rate of depletion and the factors that influence the rate of production of a wildlife population forms the basis for wildlife management.

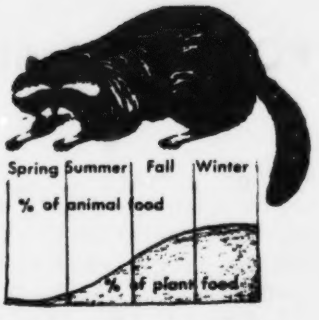


TERRITORY is a specific area that an animal advertises to be its exclusive property and then defends against intruders, particularly of its own species. In species that do establish territories, the total number of animals of that species that can occupy a region is limited by the amount of territorial space available. Not all animals establish territories. Rodents, for example, have only what is called their home range. They allow members of the same species to roam freely over the home range, making no effort to defend it.

DEFENSE OF TERRITORY is greatest during the breeding season. For some birds, the territory may be only slightly larger than the actual nest site. For others it includes additional space in which to collect food. Still others establish territories only for mating, and in some species only the roosting or the feeding areas are defended. The territories of large predators extend over many square miles.

Birds mark their territories by loud calls and by a variety of displays. Other birds of the same species usually respect these announcements by avoiding the territory. In mammals, the territories are commonly marked by scents, which are restrengthened regularly—usually at least once a day. In both birds and mammals, it is the males that exert the claims and drive away other males that may try to gain entry.

Knowing the territorial habits of a species is important in wildlife management. This will determine, for example, how many of the species—say, ducks—can be expected to occupy a nesting area. If nesting boxes or similar aids are to be provided, the territorial habits will guide where they are to be placed. With a knowledge of territorial habits, too, a game manager can make a quick and accurate population census of some species.



Raccoons eat mainly animal food in spring and summer. They depend on plants (about 65%) in the winter months.

FOOD PREFERENCES are distinct for each species of wildlife. Staples are the foods that provide basic energy. In addition, there are foods that a species likes or craves above all others; these are their "sweets" or delicacies. Other kinds of food will be eaten only when the animals are very hungry and can find nothing else. Still others offer little or no nutrition but are eaten because the animal apparently enjoys chewing them. These foods may vary in availability with the season.

FOOD HABITS are learned by research, consisting of close observation, and by analysis of the stomach, crop, and gizzard contents of a large number of animals at different times of the year. The animals are obtained from those harvested during the hunting season, from accidental kills, and from samples taken specifically for these studies. Large animals may be tranquilized and their stomachs flushed.

In addition, droppings or scat may be analyzed, food caches may be discovered and studied, regurgitated pellets of indigestible items are examined, or other methods employed to recognize food needs. The wildlife manager must make certain that the staples are available for the species he expects to maintain. Otherwise the animals may fill their stomachs and still not be properly nourished.

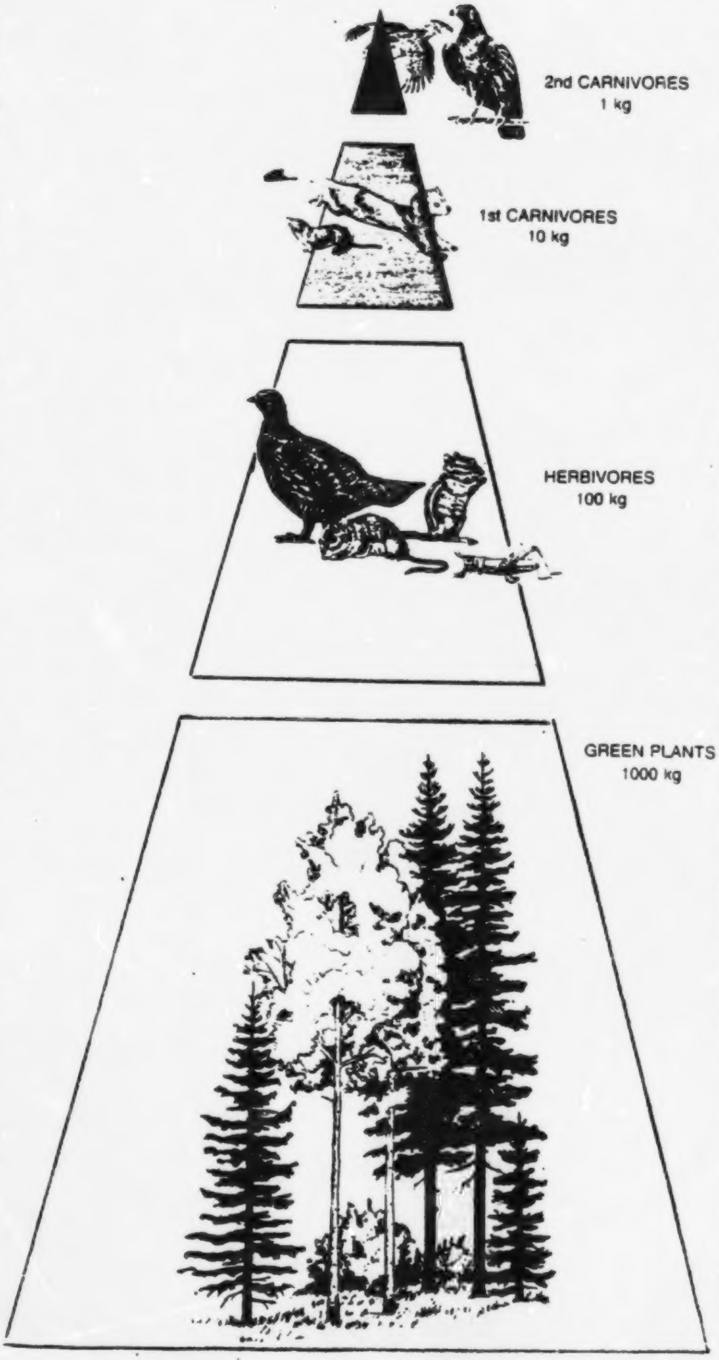
FOOD PYRAMID

A food pyramid is like a food chain, and represents some of the energy relationships between members of a natural community. However, a food pyramid illustrates the relative number or weights of the different kinds of animals, as they relate to food habits.

In terms of numbers, there are always fewer carnivores (meat eaters) than herbivores (plant eaters), and fewer herbivores than plants in any given community. Biologists have determined that it generally takes about 1000 kg of plants to feed and maintain 100 kg of herbivores. Likewise, that 100 kg of herbivores can only feed and support about 10 kg of carnivores.

For example, a field may grow 1000 kg of grasses, which supports 100 kg of ground squirrels, mice, grouse and insects. These in turn, support 10 kg. of weasels and songbirds - which in turn may support 1 kg of hawk or eagle.

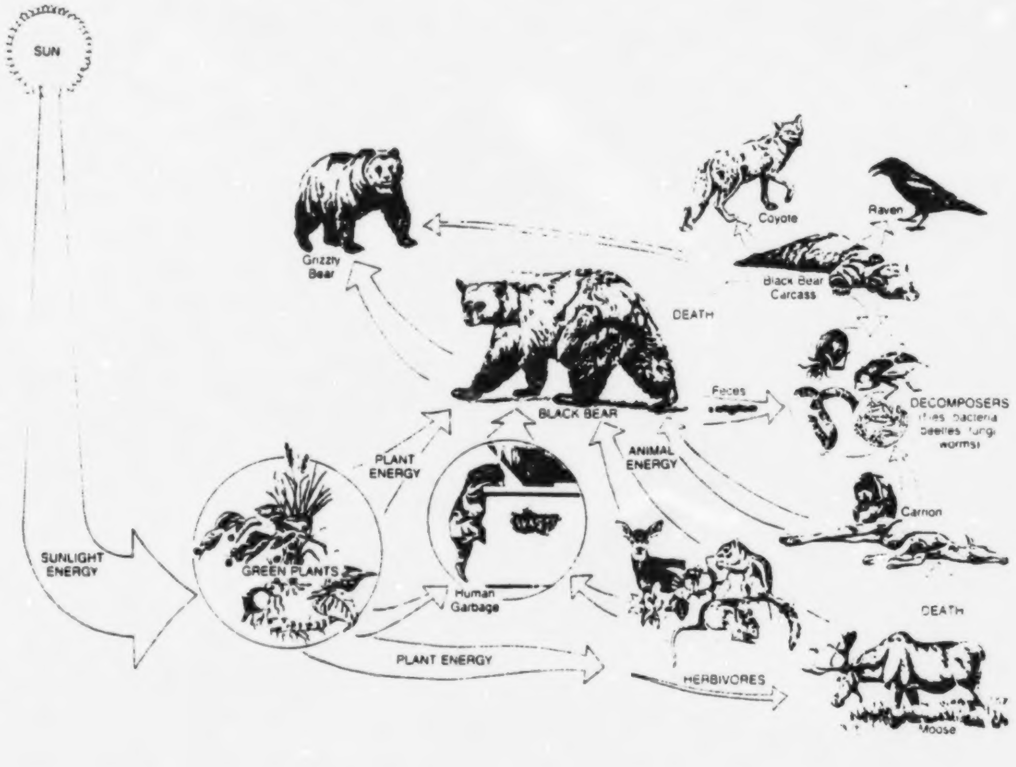
At each step on the food pyramid, the plants and animals spend about 90% of the energy they consume for their own purpose, e.g. growing, moving around, feeding, digesting, maintaining body heat, and reproducing. Only about 10% of the energy consumed at one step is transferred to the next step. That is why there are fewer and fewer animals with each succeeding step on the food pyramid.



FOOD CHAIN

A food chain (or web) depicts some of the many ways in which members of a natural community depend upon one another for food. All food energy originates from the sun. Only green plants can convert sunlight into food energy. Some of this energy is passed on to plant-eating animals (herbivores). Herbivores, in turn, pass some of their energy on to carnivores that feed on them.

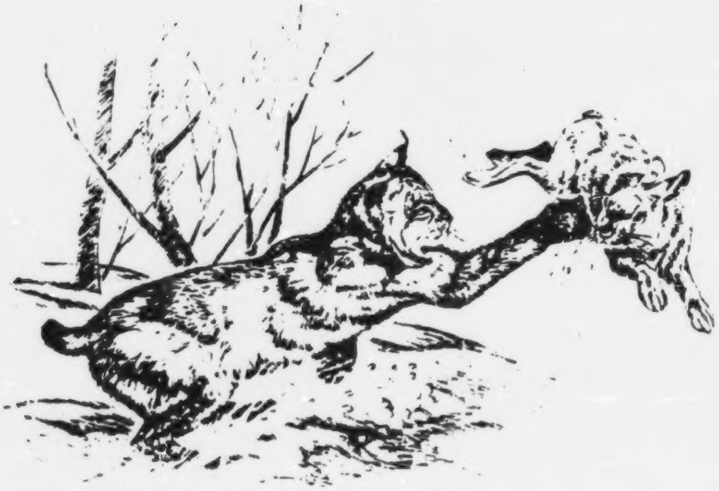
Many carnivores also feed on the carcasses of dead animals that may have been killed by other carnivores, or died from disease or starvation. What is not eaten by carnivores is eaten by other scavengers or members of the "decomposer" links in the food chain. Magpies, weasels, beetles, fly larvae, fungi, and bacteria aid in the decomposition of carcasses and feces left by living animals. Decomposers utilize the energy and nutrients in this food while eventually breaking it down into its components of oxygen, nitrogen, water and minerals that were first combined by green plants to make the original food. Decomposers return these original components to the soil where they are again used by plants.


SUN
Grizzly Bear
Coyote
Raven
Black Bear Carcass
DEATH
BLACK BEAR
Feces
DECOMPOSERS
(flies bacteria beetles fungi worms)
PLANT ENERGY
ANIMAL ENERGY
Carrion
SUNLIGHT ENERGY
GREEN PLANTS
Human Garbage
DEATH
PLANT ENERGY
HERBIVORES
Moose

Bears, coyotes and foxes eat roots, leaves, seeds and berries of plants, as well as meat. These predators are able to take advantage of seasonal abundances of various foods. Other carnivores are more specialized in their feeding habits. The lynx preys mostly on snowshoe hare at all times of the year. Thus, it numbers are largely dependent on the numbers of snowshoe hare available. As the snowshoe hare population rises or falls, so follows the lynx population.

Most predators are opportunists. The weak and unfit members of a prey population are the easiest to catch. Thus, predators tend to cull these individuals from the prey population. In so doing, they ensure that only those prey individuals fit enough for the rigors of their environment will survive to produce offspring. In turn, a more vigorous prey population ensures that only the most fit predators will catch enough food to survive and produce offspring. Predator and prey have long survived together and have developed adaptations to each other and to other components of their environment.

Predators seldom endanger the existence of a prey population. If the numbers of a preferred species drop too low, the predator usually hunts different prey, moves to a new area where game is plentiful, or dies.



Habitat Change

PLANT SUCCESSION AND WILDLIFE POPULATIONS

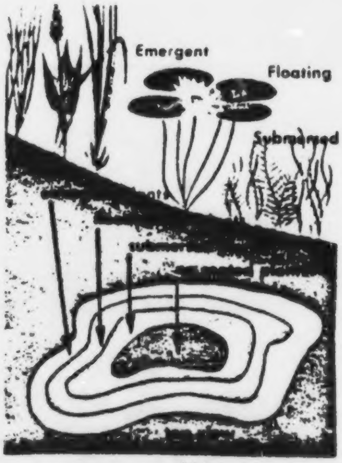
There is a natural tendency for plant communities to change and progress over time, through a series of different plant associations.

If a piece of land is reduced to bare ground by some means such as fire, flooding, land clearing, an avalanche, etc., the first plant growth to appear will likely be mosses or lichens or herbs and grasses, followed by shrubs, then larger deciduous trees, then a mixture of deciduous trees and coniferous saplings, and finally, a primarily coniferous forest usually results. This last, or climax, stage may take one hundred years or more to be reached and may last for a long time as it is a very stable situation, then fire or some other mechanism starts the whole succession over again.

The pattern of succession and the ultimate climax forest type may vary somewhat, depending upon the soil type, moisture content of the soil and climate. For example, in Alberta, jack pine may consititue most of the successional stages to climax on dry sandy soil, while black spruce will result on wet boggy soils, and white spruce and balsam fir will climax on moderately moistsoils. The progress of succession may be reversed or halted at any point in the progression by such agents as man, fire, flooding, etc.

Plant succession also occurs in water environments, progressing from submerged, to floating, to emergent vegetation as the water becomes shallower, until it is eventually filled in with vegetation, becoming land and further progressing through plant stages to a climax forest. This process of course may take a very long time, depending on the size and depth of the water body.

Animal communities are closely associated with plant communities, that is, certain species of animals will predominate or only occur in certain stages of plant succession. In general, the earlier stages of succession support a more diverse and abundant association of animals. The following chart gives an indication of the types of animals which might be found occurring in different stages of plant succession.

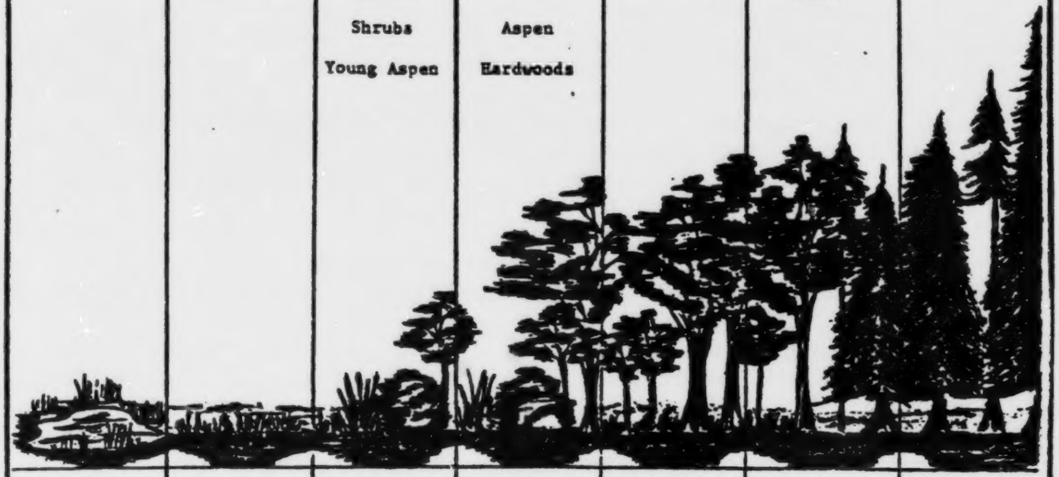


Plants typically grow in concentric zones in shallow lakes.

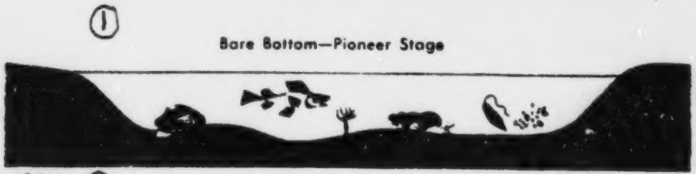
"PLANT SUCCESSION AND WILDLIFE POPULATIONS"

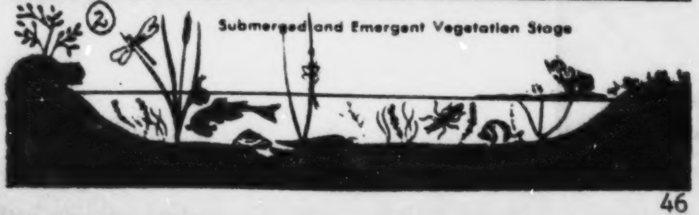
0 → 200 Years

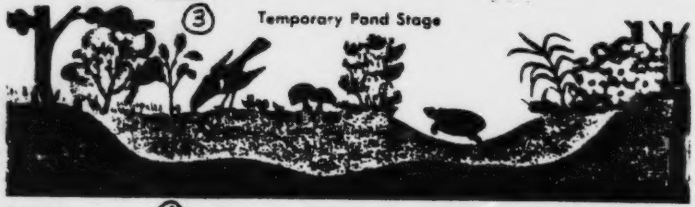
Open Pond	Grass & Sedge Meadows	Meadows Willows Shrubs Young Aspen	Willows Shrubs Aspen Hardwoods	Aspen Hardwoods	Mixed Woods	Conifers
Beaver Muskrat Mink Otter	Mice Weasels Elk	Mice Foxes Coyotes Elk Deer Moose	Mice Foxes Coyotes Rabbits Elk Deer Moose	Mice Foxes Coyotes Rabbits Lynx Elk Deer Moose	Squirrels Marten Fisher Rabbits Lynx Bear Deer Moose	Squirrels Marten Fisher Rabbits Lynx Caribou

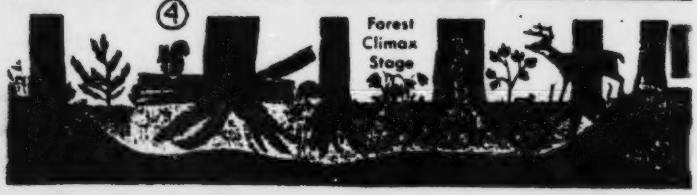


POND SUCCESSION


①
Bare Bottom—Pioneer Stage


②
Submerged and Emergent Vegetation Stage

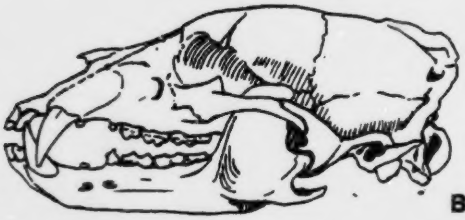

③
Temporary Pond Stage


④
Forest Climax Stage

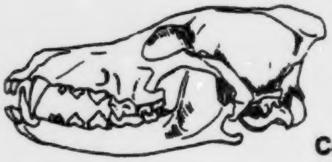
LARGE CARNIVORES

LIFE STYLE AND HABITS

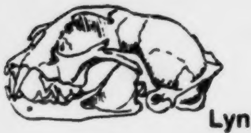
The carnivores, or meat-eaters, are an order of mammals (Carnivora) adapted to catch and kill other animals for food. Most have teeth especially designed for gripping, tearing and shearing flesh - long pointed canine teeth (eye teeth) and sharply edged cheek teeth (except bears). The jaws and teeth act like scissors when they close. Alberta's native carnivores are members of five distinct families, the dog family, (Canidae), cat family (Felidae), bear family (Ursidae), the weasel family (Mustelidae), and raccoons (Procyonidae). Raccoons occur in prairie and parkland zones near water courses in the province; they are not numerous and are only rarely seen.



Bear Skull



Coyote Skull

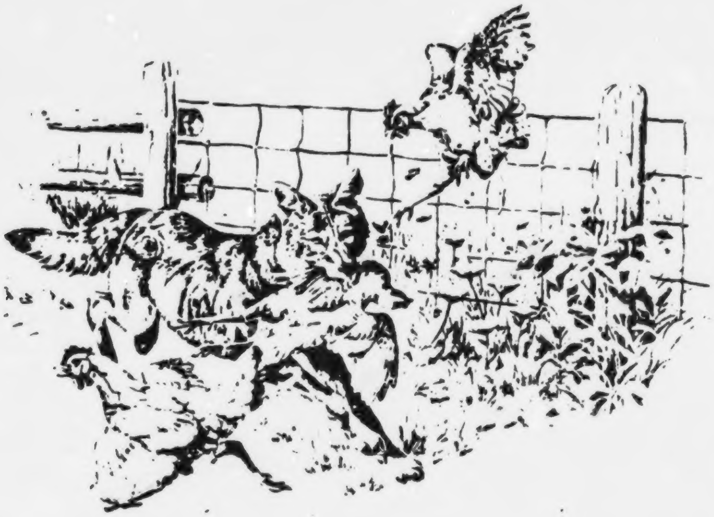


Lynx Skull

Carnivores have keen senses of smell, sight and hearing that aid in tracking, chasing and catching of prey. Members of the dog family are especially adapted for chasing their quarry and killing it by snapping and slashing with their jaws. They have long legs and long, non-retractable claws for traction on the ground. Their jaws are long and are equipped with teeth that cut and tear.

RELATIONSHIP WITH MAN

The intelligence and hunting skill of carnivores have always fascinated man. These animals have been the subjects of myths and legends since prehistoric times when man was just another predator competing with carnivores for food. Native Indians both feared and respected the awesome power of the grizzly bear. Bear dances were performed to appease the grizzly's spirit, and bear claw necklaces were prized as symbols of bravery and cunning. Today, the grizzly bear is still regarded as a dangerous predator. Cougars are admired for their lithe grace, and respected as efficient killers. Foxes have long figured in folk lore as skillful tricksters. Because they take poultry and other livestock, coyotes have been scorned as pests. Wolves have long been feared by man. They figure in many folk tales, usually associated with evil. Although often accused of attacking man, authentic reports of wolf attacks are extremely rare. Biologists who work in close contact with wolves have found them curious, and wary, but not hostile.

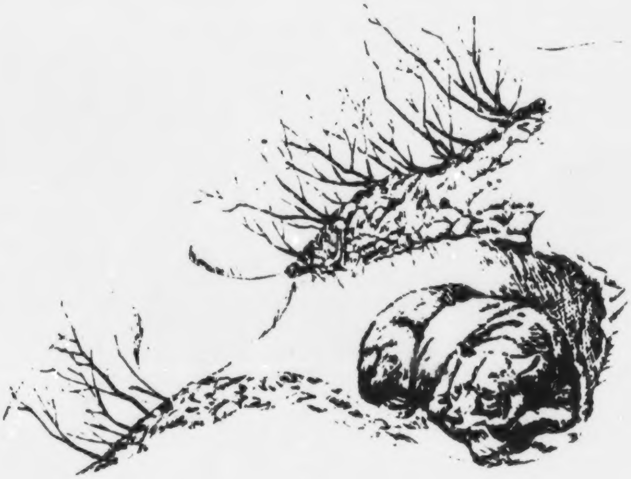


The arrival of European settlers in Alberta affected the distribution and abundance of many large carnivores. Grizzly bears, cougars and wolves once ranged over most of the province, but were eliminated from the prairies and parklands by settlers protecting their stock and property. However, the coyote was able to adjust to human settlement. Its medium size and broad range of food habits enabled the coyote to adapt to changes in its environment.

Members of the cat family are specialized for taking their prey by stealth and ambush. Their teeth are highly developed for biting and shearing. Jaws are short, providing a powerful bite. Eyes are directed forward, providing greater binocular vision which enables cats to judge distances more accurately. Unlike other carnivores, cats have retractable claws which are extended only for use in catching prey, or climbing. When walking, the claws are withdrawn and protected from wear.

Bears feed largely on plant matter as well as insects, rodents, or other small animals, and only occasionally hunt big game. They have large-crowned, flat cheek teeth, like those of humans, adapted for crushing and chewing fibrous foods, such as roots and grasses. Stout, powerful bodies and short, strong legs enable bears to roll large stones, pull logs apart, or dig out burrows when searching for food.

Bears are the only large carnivores in Alberta that go into a period of dormancy (hibernation) during the winter. In late fall a bear digs a hibernation den at the base of a tree, under a deadfall, or in a cave. Inside the den, the bear goes into a sleep-like state in which the bear's heart rate and body functions are reduced. During hibernation, the bear lives off of the fat it accumulated when it was foraging in late summer and fall.



Carnivores can conflict with man and his interests. Bears distroy bee hives; wolves, foxes and coyotes kill lifestock and poultry. Such depredations cause economic losses to farmers and ranchers. In some areas, local prevention and control programs are necessary.

In the past, many people felt that all predators were pests and should be eliminated. In Alberta, bounties were placed on wolves, coyotes and cougars. Today, a greater awareness of the relationships within the natural community has caused people to realize that predators play a vital role in the natural world. The removal of predators can have disastrous effects. In addition, predators have many aesthetic, recreational and economic values. The trapping of wild furbearing carnivores provides a livelihood for many Albertans. It is important to trappers and the restored fur industry that populations of furbearers be carefully managed to ensure continued harvests.

To many people, large carnivores represent wilderness itself. The sound of a wolf pack howling, the glimpse of a fleeting cougar, or even the tracks or sign of these animals signify a special place, untouched by the urban world. How much of our sense of adventure would be lost from excursions into wildlands, if the large carnivores were eliminated?

MANAGEMENT OF LARGE CARNIVORES

The management of large carnivores has been largely restricted to efforts to control the numbers of predators that compete with man for food. The traditional idea that the elimination of predators would increase game populations resulted in the implementation of many widespread predator control programs early in the 20th century. However, these programs produced highly variable, and in some cases, unforeseen results. In some studies, prey populations remained the same or declined after predator removal. It became evident that predators held an important and complex position in the natural community.

Today, wildlife management programs take into account the role of the predator in the natural community. Control of predators on behalf of game animals is rarely justified. However, it may be necessary to remove predators that threaten human life or livelihood. In these cases, the Alberta Fish and Wildlife Division first investigates complaints to determine if predation is involved. Many predaors eat the meat of animals that are already dead (carrion), and thus their tracks or other signs do not necessarily indicate they killed the animal. Where complaints are justified, some compensation for losses is available through Alberta Agriculture, and control measures are usually taken to prevent further loss.

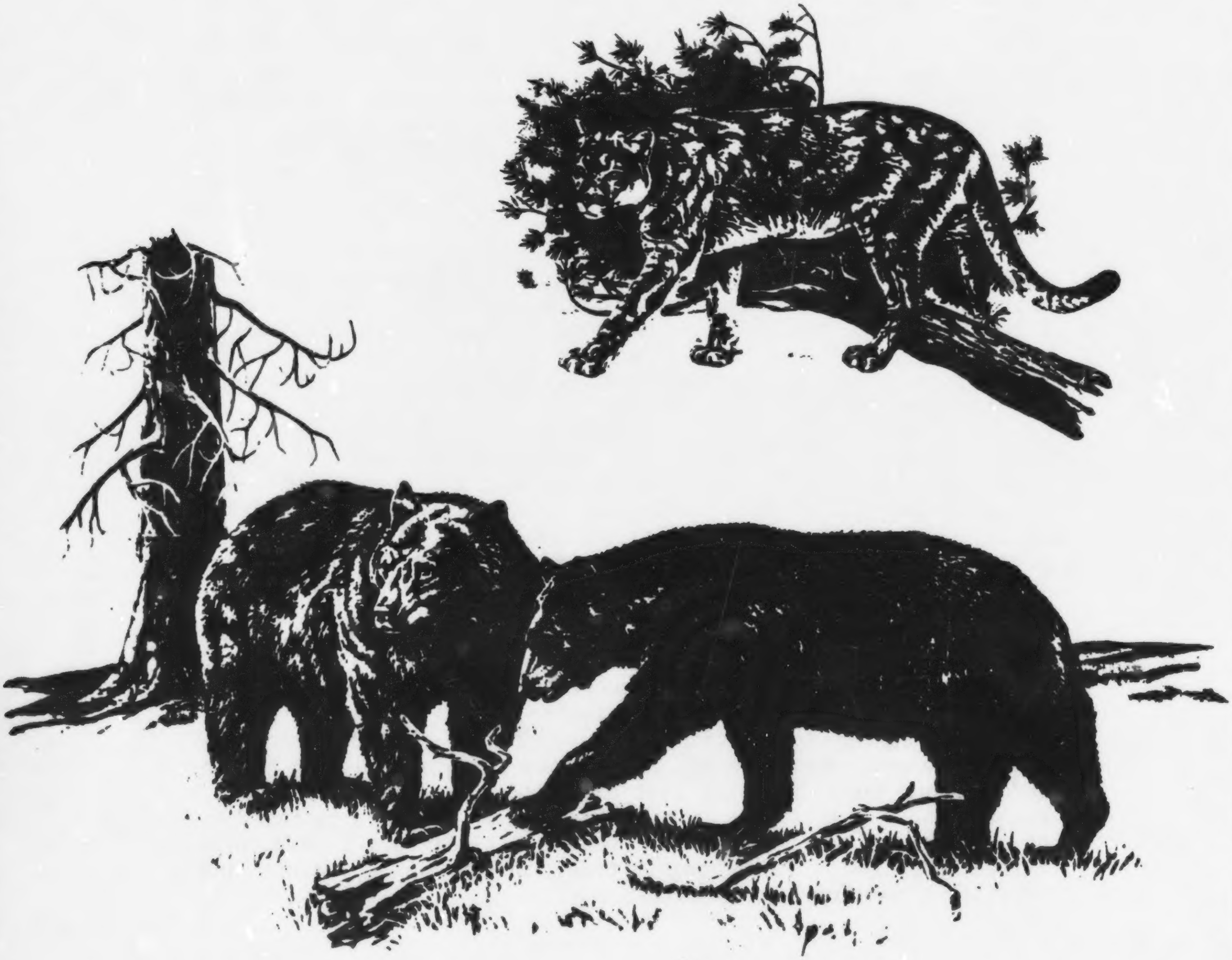
Large carnivores are a renewable resource. A habitat can only support a limited number of any one species. Under normal circumstances, a species produces more offspring than its habitat can support. If the surplus animals are not harvested through hunting or trapping, they will ultimately die from starvation, disease, predation or other causes.

Lynx, bobcats, foxes, coyotes and wolves are furbearing animals. Regulated commercial trapping of these species is allowed under the Alberta Wildlife Act. Trappers, traplines and fur sales are continually monitored by the Fish and Wildlie Division. Bears and cougars are big game animals that may be hunted. Hunters are licensed and areas of harvest, seasons and number of animals taken are regulated.

Information about the numbers of each species, its life history and role in the natural community is essential for sound management. The Fish and Wildlife Division studies carnivore populations to gather information about numbers and habitat requirements. Harvested animals may be examined to determine age, health and feeding habits of each species. Track counts, scat counts, and tagging of individual animals are some of the methods that can be used to estimate population numbers. Individuals have been fitted with small radio transmitters to monitor movements and provide information about habitat use.

The maintenance and development of wildlife habitat are crucial to the continued well-being of all wildlife populations. The Buck for Wildlife Program, financed largely by sportsmen, provides funding to maintain wildlife habitat for a wide variety of species, including carnivores.

Harassment of carnivores and other wildlife with snowmobiles has been a problem in recent years. Although such actions may not result in the immediate death of an animal, some animals may die from exhaustion later. In Alberta, it is illegal to chase, molest, or injure any wildlife with a vehicle.

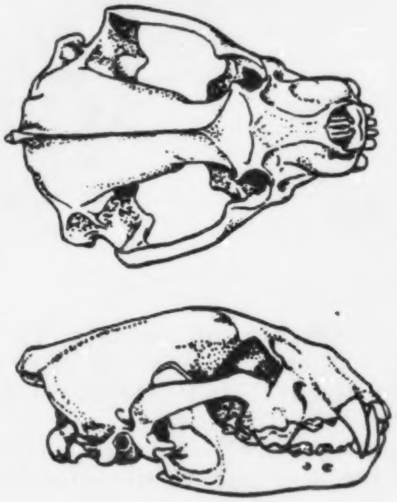


THE WEASELS

LIFE STYLE AND HABITS

The weasel family is large and diverse. Members of this family are found on all continents except Australia, Antarcitca and the island of Madagascar. About 70 species have been described for the world. Alberta's representatives include the smallest of all living carnivores, the 70 gram (2 1/2 ounce) least weasel, as well as the largest of the weasels, the wolverine, which may weigh 16 kilograms (35 pounds). Male weasels are usually 1/3 larger than females. The life style of weasels varies considerably, ranging from that of the river dwelling otter and the prairie dwelling badger to the tree dwelling marten.

Members of the weasel family are long-bodied, short-legged, agile predators who hunt persistently and attack prey up to four times their size. Wolverines have been known to bluff grizzly bear and cougar from their kills and even the short-tailed weasel may turn on man if forced to defend itself. Weasels are usually active year-round and they may hunt by day or night. In the past, weasels have been accused of killing more prey than they could possibly eat, but research has shown they commonly cache excess food for later use. Considering their fast paced life style, which may require weasels to eat the equivalent of 1/3 of their body weight in meat each day, such food caches do not last long.



In some members of the family, mating occurs in the fall or early spring. In other weasel species, the female is virtually pregnant throughout her life. Soon after she gives birth to a litter in spring, she will mate again. The embryo begins to develop, then stops growing until later winter when development resumes. This phenomenon is called "delayed implantation". It is rarely found among mammals. The benefits of such delayed embryo development are related to food availability and the energy demands of the seasons. Mating and much of pregnancy occur during the spring and summer months, when food is abundant and climatic conditions are favorable. Weasel "kits" are born early in the year so they are fully grown before entering the harsh winter months.

Anoher special characteristic of weasels is their anal glands which produce scent. Scent is used to mark the boundaries of their territories and may also indicate their reproductive state.

Weasel jaws are short and well muscled, thus increasing their strength. The jaws are designed to minimize slippage of anything in their grasp.

RELATIONSHIP WITH MAN

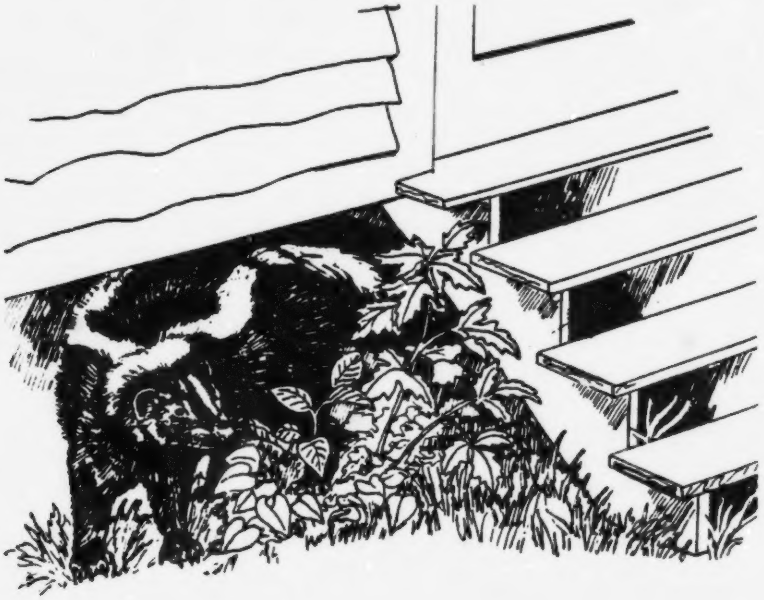
The skill and ferocity weasels display while hinting has earned them the respect of many people. The Inuit believed the weasel's skin possessed spiritual powers and their hunters carried these skins in the hope of greater success. Inuit also called the wolverine "Ke-wa-kees" or "Evil One". They believed he possessed the soul of an Inuit hunter damned to plunder the traplines of other hunters.

Tame otters were kept by King James I of England to fish for his supper, and a "keeper of the King's Otters" was appointed to tend them.

The members of the weasel family are highly prized for their pelts. The "ermine" winter pelt of the short-tailed weasel has long been associated with royalty. It was the fur trade which originally brought the Europeans to western Canada and many of the early trading posts gave rise to our towns and cities. Fur garments are still in great demand today and trapping of wild populations remains an important part of Alberta's economy. Today, thousands of mink are raised in captivity and mink farms are found throughout Alberta, particularly where a food supply, usually fish, is abundant.

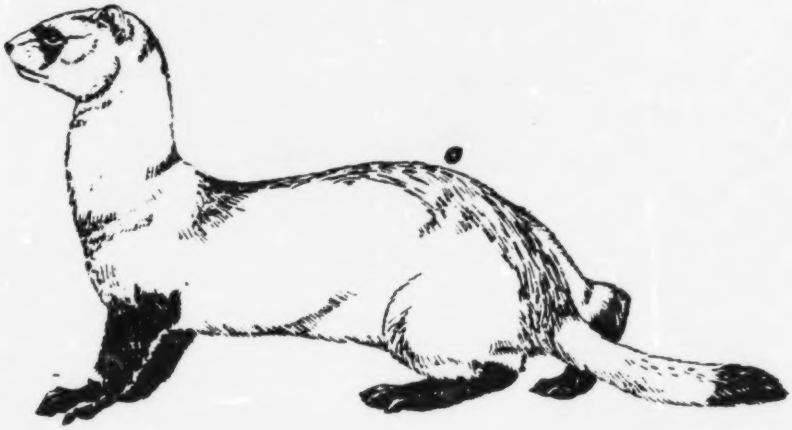
Some weasel species are considered pests by farmers. Skunks and other weasels are often attracted to farm buildings where they find shelter and ample food in the form of mice and other rodents.

Though often accused of hen house raids and considered as vermin, their beneficial role in pest control far outweighs the damage they cause by eating a few chickens or eggs.



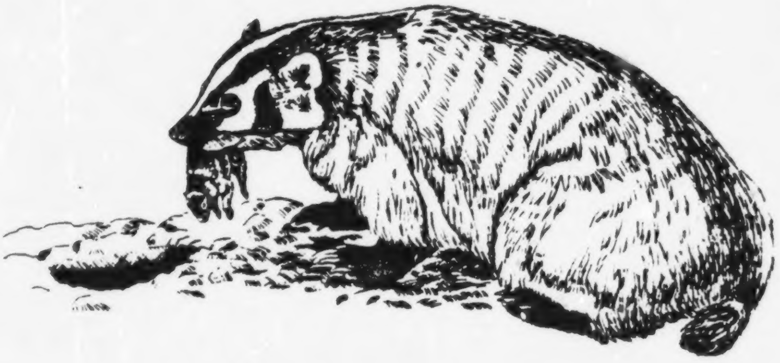
Skunks are commonly involved in the spread of rabies. Research and control of skunk populations is an important part of the wildlife management program of the Fish and Wildlife Division of the Government of Alberta.

One member of the weasel family could not co-exist with early agricultural practices in Alerta. The black-footed ferret has specialized requirements for its life style and depends on prairie dog colonies for both food and shelter. The disappearance of prairie dog colonies in southern Alberta, as a result of poisoning and other agricultural activities earlier in the centrury, led to the extinction of the black-footed ferret in our province.



Because of the economic value of their fur, the Government of Alberta allows commercial trapping of weasels. The Fish and Wildlife Division estimates the population level of each weasel species. By registering all trappers, traplines and fur sales, the Division determines the number of each species being harvested. If a population, such as the river otter, is in danger of being overharvested, the Division may reduce trapping quotas, shorten season lengths and designate areas closed to trapping to limit the harvest, thereby insuring the future welfare of Alberta's furbearer populations.

Other management practices may be necessary for other members of the weasel family. In some areas, skunks may contribute to the spread of rabies. Their role in this regard requires special study. The badger is given complete protection in areas where its value in pest control is greater than its value as a furbearer. Along the eastern border of the province, trapping of weasels is restricted as they are a vital force in halting the possible spread of rats into Alberta.



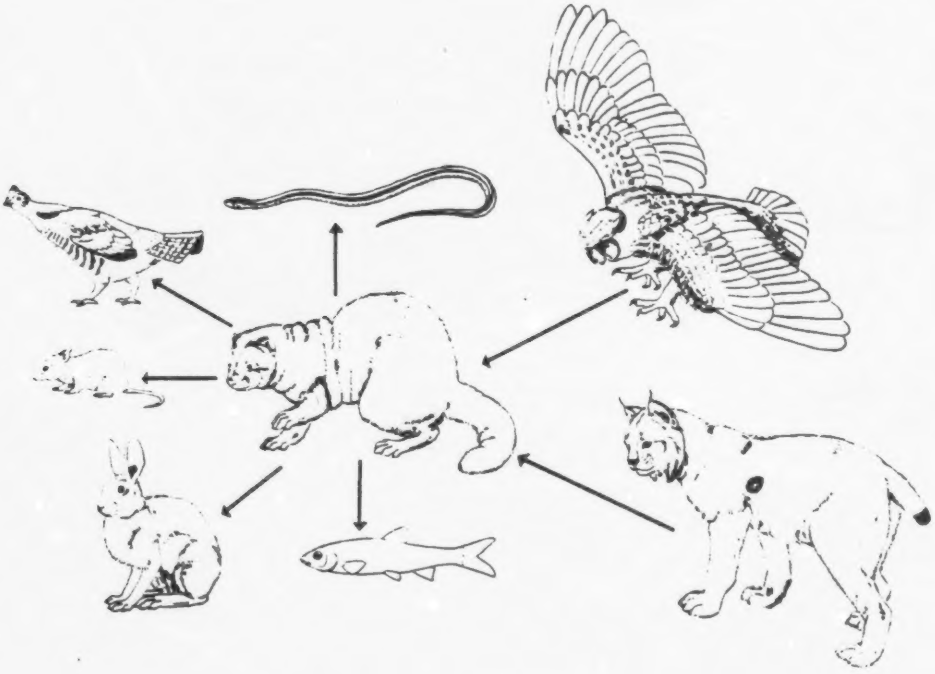
FOOD CHAIN

The weasel family belongs to the order Carnivora, "the meateaters". With the exception of the river otter, all members of the weasel family feed primarily on insects and small rodents. Their diet consists of whatever meat they can obtain and may include birds and bird eggs.

As predators, they play an important role in the animal community. They live off the annual surplus of animals they prey upon. Generally, they capture those animals which are less fit to survive, usually the young, old, injured or sick. Predators also tend to hunt the most abundant prey, turning to another prey species if the numbers of the first become scarce. In this way, they seldom endanger the long-term welfare of the animal populations they prey upon.

The same agility and ferocity used in hunting is used for defence. Members of the weasel family have few natural enemies. Man can be the greatest threat to their survival or, if he chooses to manage them wisely, he can be their greatest benefactor.

Weasels are a vital and necessary component of Alberta's ecosystems. Their removal would drasticalloy upset the "balance of nature"; man should be concerned with their future welfare.



MANAGEMENT OF WEASEL POPULATIONS

Wildlife is a renewable resource. Renewable resources are those natural resources which are capable of replenishing themselves while being used by man. Such resources include forest trees, agricultural crops, grassland forage and water, as well as fish and all forms of wildlife. At any given point in time, the abundance of a renewable resource depends upon the rate at which it is being used and the rate at which it is replenishing itself.

Weasels, like all living things, have limited rates of reproduction. This determines how many of these animals can be harvested by man without harming their populations.

The Fish and Wildlife Division is responsible for maintaining desirable levels of wildlife populations in the province. Provincial governmemt legislation, namely the Wildlife Act, covers all members of the weasel family. They are classed as either "fur-bearing animals" or fur-bearing carnivores". This Act protects all weasels and their homes and specifies the circumstances by which they can be harvested or controlled.

RABBITS AND LARGE RODENTS

IDENTIFICATION

Rabbits and rodents are gnawing mammals, specialized for eating vegetation. Although the two groups are similar in form and life style, they differ in body structure and have separate evolutionary histories.

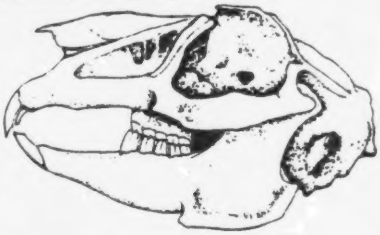
Rodents are the largest group of mammals (Order Rodentia), comprising over 1,600 species world-wide. In Alberta, there are 37 species of rodents.

Rodents have a single pair of large incisor (front) teeth on each jaw. These teeth are separated from the grinding (cheek) teeth by a large space. Rodents do not have canine (eye) teeth. Unlike other teeth, the incisors of rodents continue to grow throughout their lives. Therefore, each rodent must continually gnaw to keep these teeth worn down to their proper length. The outer surface of each incisor tooth is composed of enamel which is harder than the soft dentine of the inner surface. The dentine wears away faster than the enamel, so the tooth is always chisel shaped and sharp.

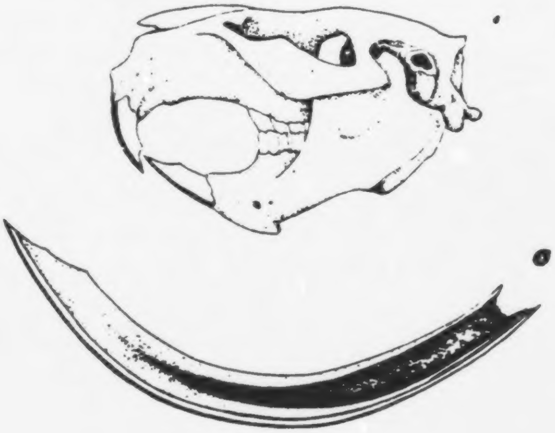
Rabbits, hares and pikas belong to the Order Lagomorpha, comprising 63 species world-wide. Only four species occur in Alberta. Like rodents, lagomorphs have a large space between the incisors and cheek teeth, lack canine teeth, and have continuously growning incisors. Unlike rodents, lagomorphs have two pairs of incisors on the upper jaw - a smaller, peg-like pair directly behind the larger front pair.

Rabbits and hares are highly specialized for running by leaping and bounding. They have large hind feet and legs, and move quickly to escape predators. large, elongated ears enable rabbits and hares to detect noises at great distances.

LEPORID (JACK RABBIT)



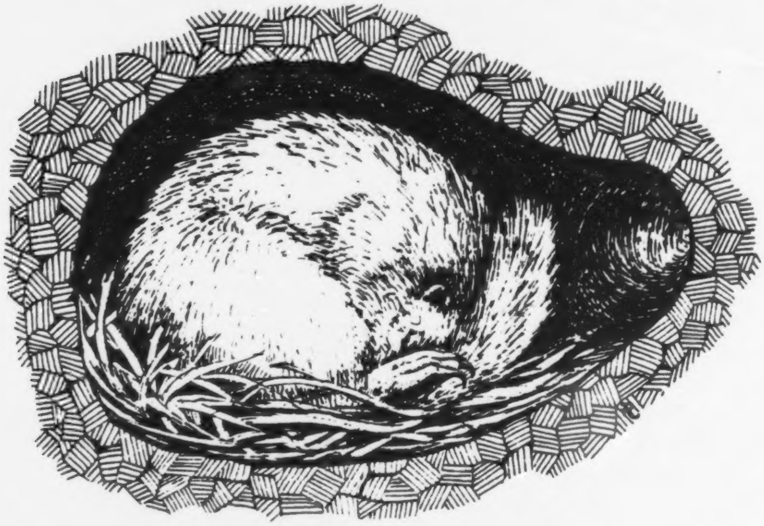
RODENT (BEAVER)



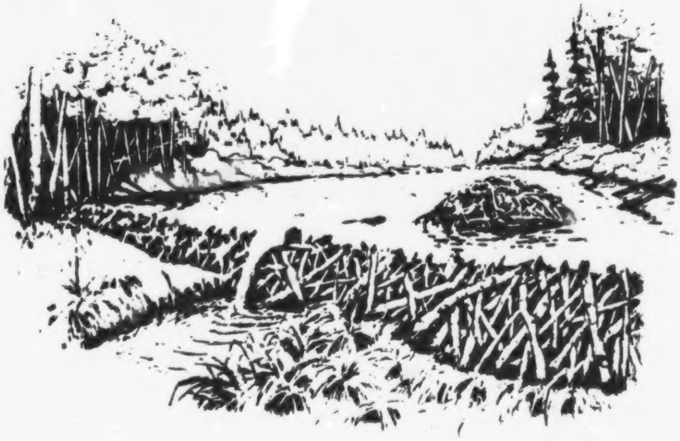
LIFESTYLE AND HABITS

Of the 37 species of rodents in Alberta, only a few are regularly seen by man. Most are active at night (nocturnal) and secretive in behavior. Marmots are active during the day (diurnal); but the beaver, muskrat, squirrel and porcupine are generally nocturnal.

The marmots (Genus Marmota) are large members of the squirrel family (Sciuridea). Marmots hibernate during the winter. Hibernation is an adaptation to the cold of winter, when an animal enters a dormant state. In this sleep-like condition, the animal's body temperture, heart beat rate and energy requirement are reduced. Prior to entering hibernation in the fall, marmots store food energy in the form of body fat. This supplies the animal with all the energy it needs to stay alive until spring.

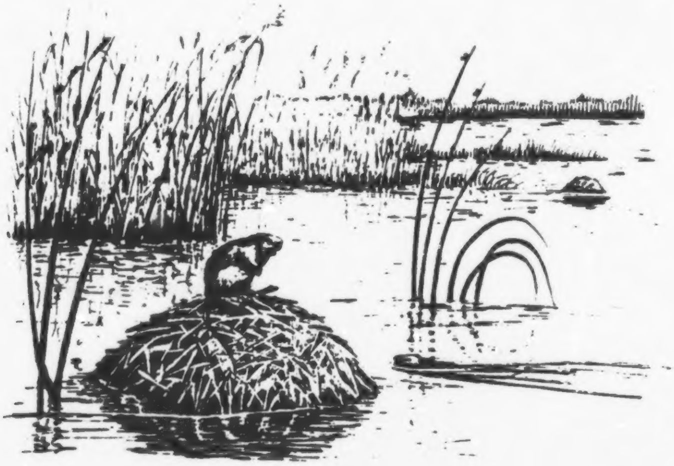


Beaver, muskrat and red squirrels do not hibernate. They remain active throughout the winter and must continually find enough food to supply their high energy requirements during the cold winter months.



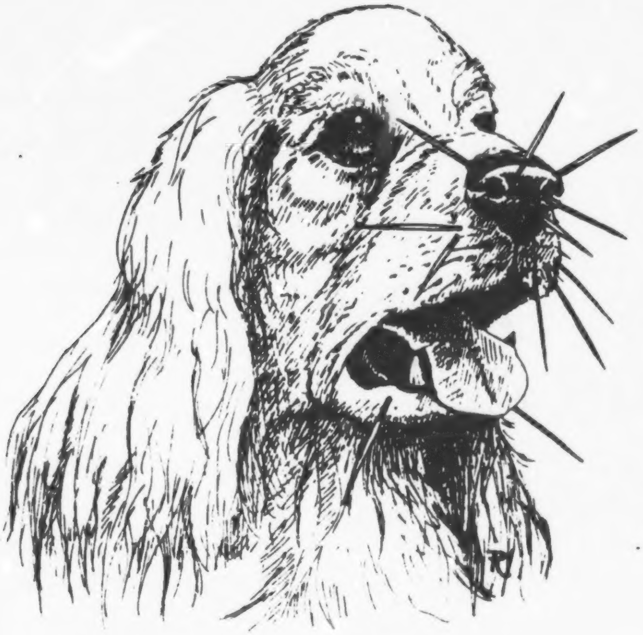
The beaver is one of the few animals that changes its environment to suit its life style. Beavers construct dams on streams to create ponds. The pond provides protection for the beaver family. A beaver house is constructed of sticks and mud, and is usually situated well away from shore so that land-based predators cannot get at it in summer. In winter, the mud freezes, forming an impregnable fortress against predators that might venture across the ice. Beavers eat the bark of trees and shrubs. The beaver pond floods the surrounding woodland, allowing the beavers to fell trees close to shore. Beavers may raise the height of the dam so that they can bring more food into reach. When the food supply is finally exhausted at the dam's maximum height, the beaver family abandons the pond and moves to another site. Some beavers live along rivers and do not build dams or lodges. Instead they burrow into the bank of the river and fell trees for food near their home.

The muskrat also lives in ponds, but it does not build dams. Muskrat houses are built with mud, pond weeds and casttail stalks. In the winter, muskrats form "push-ups" in the pond ice over their feeding areas. Push-ups are domes of frozen vegetation covering a hole in the ice. The muskrat keeps these holes open throughout the winter by continually chewing away the ice and pulling up underwater vegetation to build an insulated dome over the hole.



Porcupines move about at a slow and plodding pace, and are easily overtaken by most animals. However, their impressive defence system discourages attack by wolves, coyotes and other predators. A porcupine will turn its tail to an attacker and cover its unprotected face. If the attacker gets too close, the porcupine will lash out with its spiny, club-like tail. The blows are delivered swiftly, and the loose quills are easily detached from the porcupine's skin.

The barbed quills can be quite painful and prevent the attacer from feeding, especially if they are impaled in the mouth or paws. The barbs on the quills prevent easy removal and promote movement deeper into the victim. Thus, the quills can kill an animal weeks after an attack.

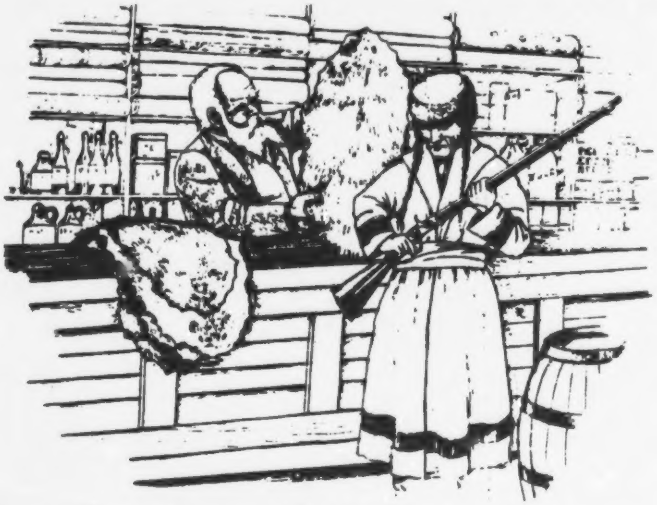


RELATIONSHIP WITH MAN

Of all the wildlife in Canada, none has affected man more than the beaver. The beaver was one of the first natural resources to be exploited by European man. The quest for beaver pelts opened the country to exploration and settlement.

Prior to the arrival of Europeans, the warm beaver pelt was already prized by the Indians. It quickly became the currency of exchange when European traders arrived.

Unfortunately, beavers were trapped out of many areas, and by the 1930's, they became nearly extinct in many regions of North America.



At that time, trappers and the public began to realize that their renewable resources were limited. Through self interest and with the encouragement of wildlife agencies, many trappers began to trap only limited numbers of beaver, leaving enough to reproduce and replace those that had been removed. Today, the beaver is common throughout most of Canada, and has returned to the list of most valuable furbearers.

Unfortunately, this increase in numbers has caused the beaver to become a pest in many regions. Beavers plug culverts and otherwise dam streams that cause flooding of agricultural land, roads and railroads.

Like the beaver, the muskrat is an important and valuable furbearer. It is a very prolific species and unlike the beaver, has never been seriously threatened by past over-exploitation. However, because of its high reproductive rate, it is more subject to wide fluctuations in numbers than the beaver.

Although not a furbearer, the porcupine has quills that have long been used by Indians for decorating clothing. Because they are slow moving, porcupines are easily killed with a club, and have been a source of survival food for stranded outdoorsmen. Unfortunately, porcupines cause much damage to trees by eating bark.

Of the marmots, the woodchuck has had the most important impact on man. Because it inhabits agricultural areas, its burrows are a hazard to field equipment and livestock. Woodchucks also eat and trample crops near their burrows. On the positive side, woodchuck burrowing activity turns over the soil and provides homes for a variety of wildlife, including foxes, skunks, and cottontails.

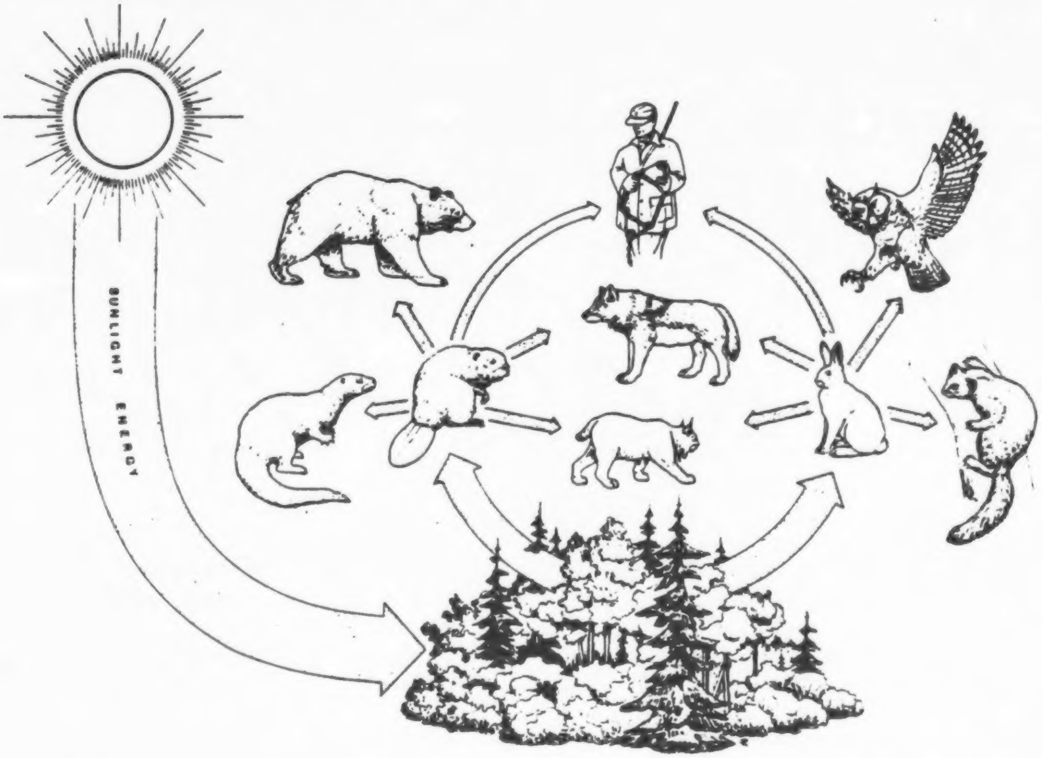
Hares and rabbits have a long association with man. The snowshoe hare has been an important food for Indians, trappers and others who live in isolated areas.

The snowshoe hare and white-tailed jack rabbit sometimes damage gardens, grainfields, and haystacks.

All of the rabbits and large rodents are interesting inhabitants of our wilderness areas, and are enjoyed by many Albertans.

FOOD CHAIN

Because rodents and lagomorphs are abundant plant eaters, they occupy an important position in the food chain of their communities. All food energy originates from the sun, and only green plants can convert sunlight into food energy. Some of this energy is passed on to animals that feed on green plants. These animals in turn pass some of their energy on to other animals that feed on them. Foxes, coyotes, wolves, lynx, mink, fishers, martens, otters, weasels, and hawks, eagles and owls are some of the predators that depend upon rodents and lagomorphs for major portions of their diets.

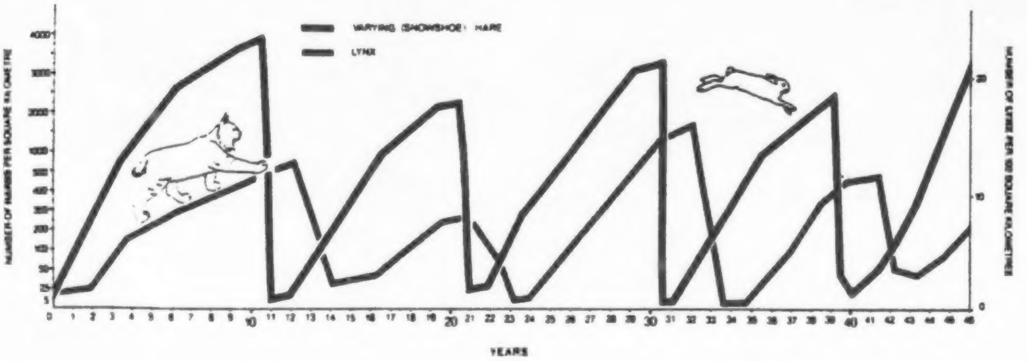


Most predators are opportunists. They hunt whatever prey is abundant and easy to catch. Because there is a variety of rodent and lagomorph species in a community, most predators do not concentrate their hunting on just one species. They switch from one species to another as each becomes abundant or vulnerable. In this way, each prey species acts as a "buffer" to the others, and predators seldom endanger the existence of a particular prey population.

CYCLES

Several species of northern mammals go through periodic cycles of population change. Over a period of time, a population will steadily rise in numbers, suddenly "crash" to very low numbers, only to rise again. Of the lagomorphs and large rodents, the snowshoe hare and muskrat tend to cycle about once every ten years.

The snowshoe hare cycle is one of the best known. At the "peak" of the cycle, population densities as high as 4,000 hares per square kilometer (10,000/sq. mile) have been estimated. Within a period of one year, these populations can "crash" to densities of less than one hare per square kilometer (2.6/sq. mile). Over the next 6 to 13 years, the populations slowly return to their peak densities.



As the hares increase in numbers, they reduce their food supply, and individuals eat less desirable and less nutritious vegetation. Because hares are plentiful and easy to find, more predators feed on them. Eventually one of several diseases, a chief cause of population crashes, kills all but the most hardy individuals.

Because the snowshoe hare is the principal prey of lynx, lynx populations also cycle about once every ten years.

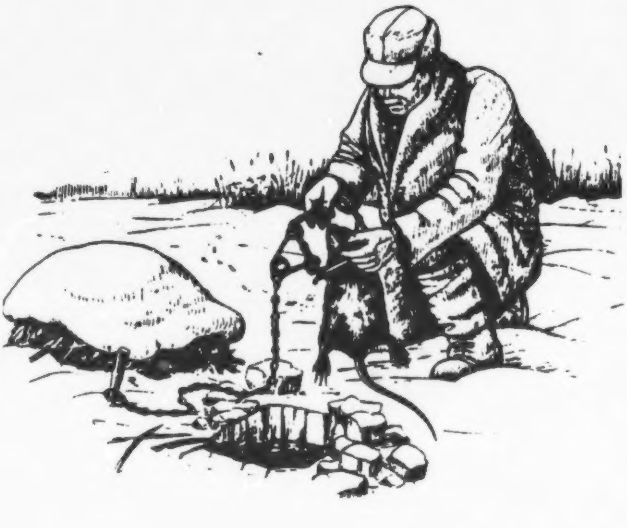
MANAGEMENT OF RABBITS AND LARGE RODENTS

Rodents and lagomorphs, like all wildlife, are a renewable resource. They have the ability to replenish what is used by man. As long as a renewable resource is managed wisely, it can always be used and enjoyed by man.

The Alberta Wildlife Act protects all furbearers and their homes, and specifies how they be harvested or controlled. All trapping in Alberta is carefully regulated by the Alberta Fish and Wildlife Division. All trappers are licenced to trap in specified trapping areas. Trapping seasons are set and fur sales are monitored by the Division.

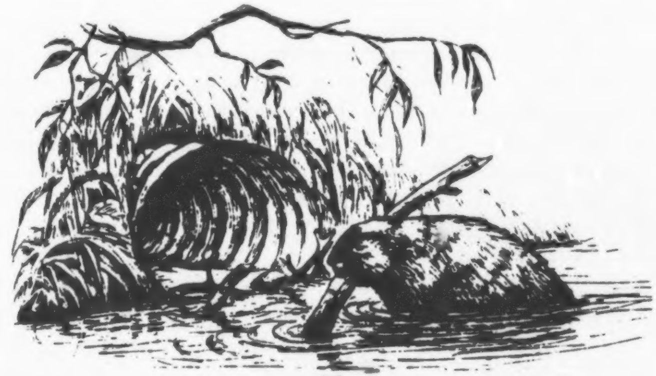
Most species of wildlife, including beaver and muskrat, produce more offspring each year than their habitats can support with food and shelter. Thus, there is a surplus number of animals in each population that will die from predation, diseases, accidents or starvation if not removed by trapping or hunting. Wildlife cannot be stockpiled from one year to the next.

Trappers remove many of these surplus animals without endangering the population's ablity to replace them. Indeed, many trappers continually underharvest beaver and muskrat; and some of these populations have grown and invaded agricultural lands, where they conflict with other interests.

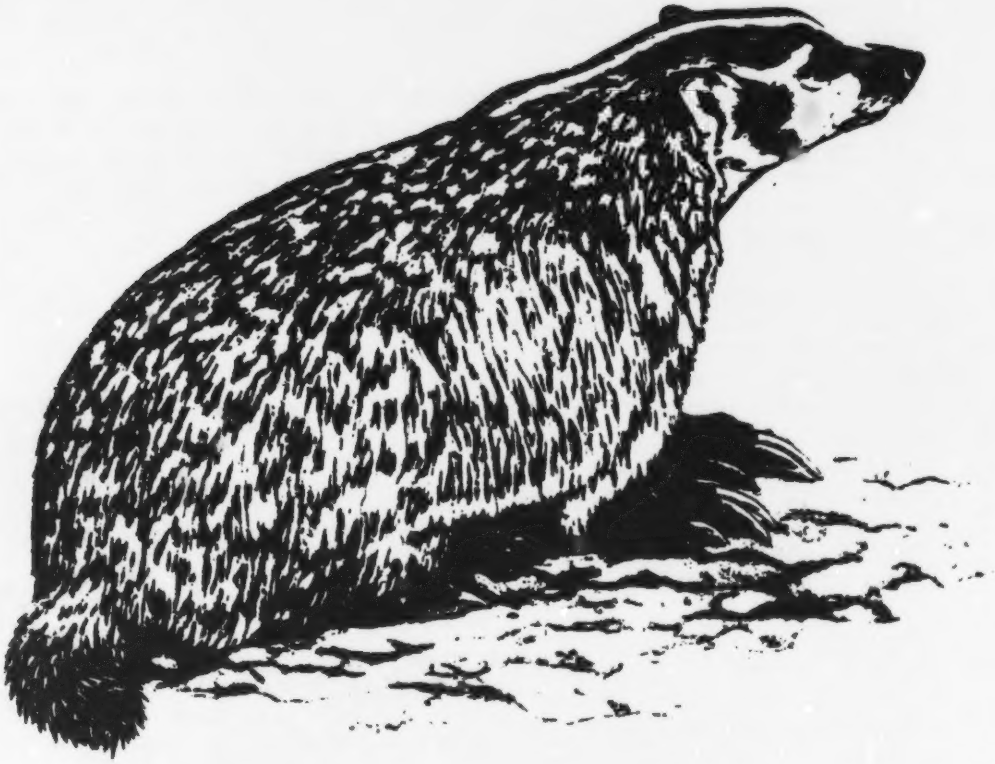


Problem beaver are very costly to the Government of Alberta. More money is spent on preventing and paying compensation for flood damage caused by beavers than all other wildlife. Thus trappers provide a service by removing surplus animals that may otherwise cause problems.

All wildlife require suitable habitat in which to feed, reproduce and seek shelter. The protection and improvement of habitat is the best way to ensure that there will always be gnawing mammals to provide food for other wildlife, to trap and hunt, and to enjoy as part of the natural world. The Buck for Wildlife Program of the Alberta Fish and Wildlife Division helps provide habitat for many kinds of wildlife, including rodents and lagomorphs.



Biology of The BADGER



NAME AND HISTORY

The scientific name of the badger is (Taxidea taxus). The Cree name is Wenusk.

The American badger is the species that is found in Alberta and is one of the largest members of the weasel family.

CHARACTERISTICS

The badger is a short, robust, flattened mammal that has a narrow, whitish stripe running over the crown of its head from its muzzle to its shoulder. This white line is matched on each side of the face by white cheeks and white ears trimmed with black. The fur is much shorter on its head than on its back and sides where it hangs loosly on the animal; very little fur is found on its underportion. The normal color of its hair is creamy-buff with black-brownish bands, giving it a grizzled appearence. Its stubby tail is covered with fairly stiff, buffy-brown hair, while its legs are dark brown to dull black. Its front feet have long, curved, digging claws, while the rear feet have short claws.

In size, both sexes appear similar with average length being about 28 inches. They weigh between 12 - 16 pounds, but extra heavy ones can reach up to 25 pounds. Badger, like other members of the weasel family, have scent glands which give off a musky odor when the animal is excited.

REPRODUCTION

Mating takes place in August-September, however, the actual implantation of the embryo is delayed until mid-February. At this time, the embryo begins active growth; the gestation period is about 46 days. They young are born in late April or early May. Litter size ranges from 2 - 5, but the average is four. They are weaned when half-grown, however, food is still brought by the mother until they are three-quarters grown. There-after, they begin to hunt with the mother and gradually learn to hunt on their own.

FOOD

The badger is mainly a carnivore and therefore, its food consists of ground squirrels, pocket gophers, mice, voles and other rodents. They will raid bees' nests, as well as birds' nests and they will take birds as well. Other food sources include snails, insects and snakes. They often wait in ambush within a burrow for unwary animals.

HABITS

The badger is a very powerful digger and a courageous fighter. It seems to be a solitary animal except during mating season. When badgers run, they have a distinct waddle. They appear to be most active at night, however, may at times, be seen sunning near their burrow in early morning or late afternoon. The badger is unusual to the weasel family, since it hibernates during the winter. Badgers live in large burrows which may be up to 30 feet long and could go down into the ground some 10 feet. The entrances to their burrows are indicated by large mounds of dirt. Although it is a quiet animal, when threatened, it may hiss and snarl and try to intimidate the animal or person following it.

POPULATION

The overall badger population is low and mainly occurs in areas where gophers and ground squirrels abound. In earlier times, some badger were known to exist in the Peace River area, however, with the expansion of settlement and extensive farming practices, their numbers seem to be dwindling.

HABITAT

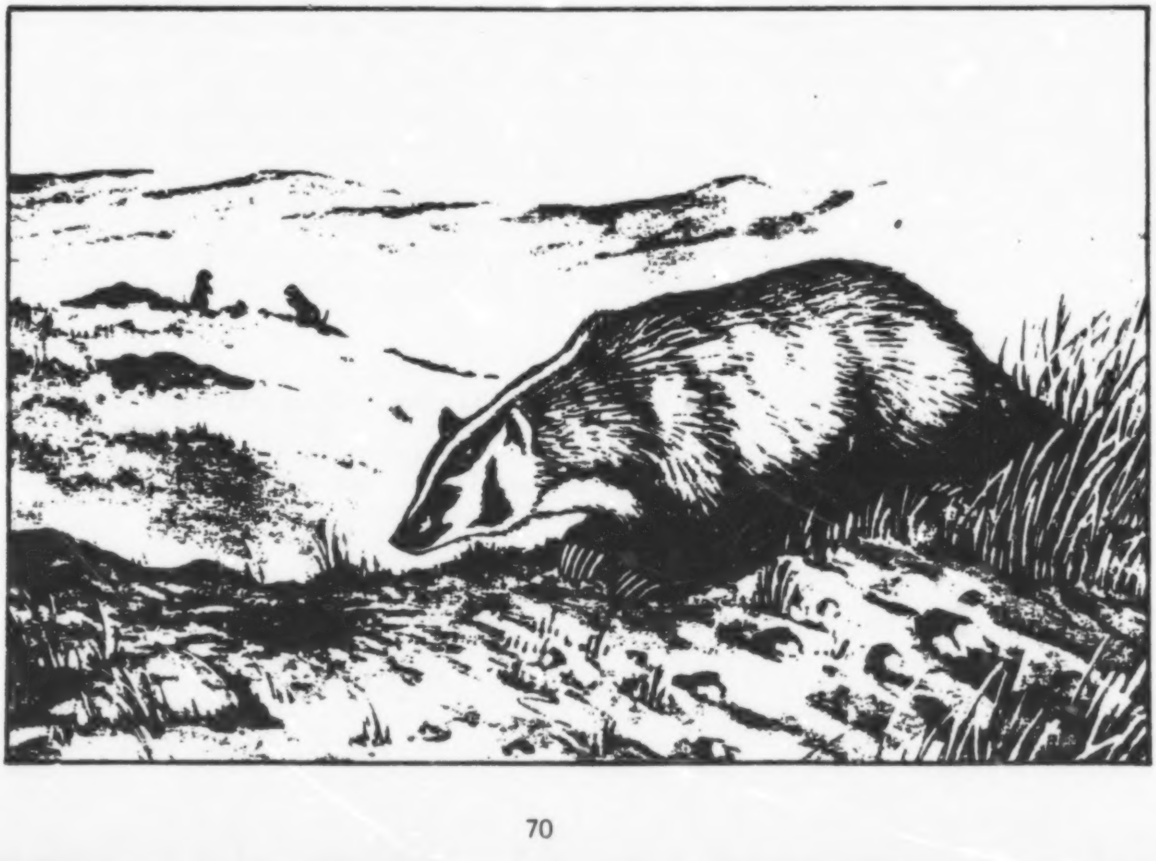
Badgers are found mainly in open prairie and plains, farmlands and open foothills where sandy loam areas occur that permit easy digging and which can support other burrowing rodents.

ECONOMIC VALUE

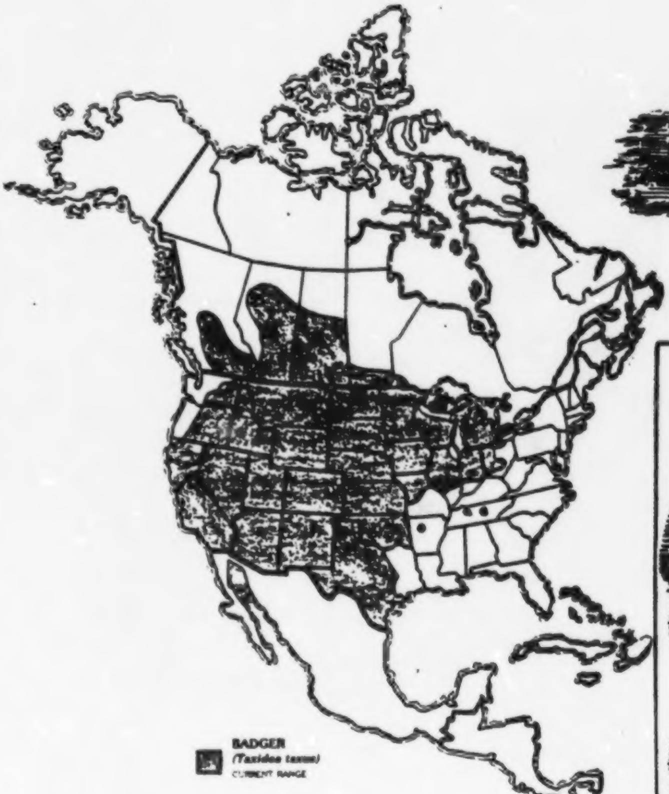
The fur from badger has recently become quite valuable; however, there is much varience of fur on badgers - some have fairly short hair while others have quite long hair. The long, clear colored furs bring good value and are used mainly for specialized purposes. The fur is quite durable and the badgers' hair is known for use in shaving brushes. Beyond the dollar value, badgers do control pest populations, however, in so doing, create problems for farmers. The large burrows and mounds cause problems to machinery and livestock, thus, badgers do not mix well with farming operations. During the past decade, approximately 1500 - 1800 badgers were taken by trappers annually.

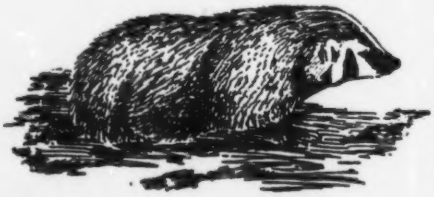
RANGE AND STATUS

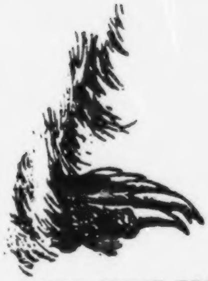
The range of badgers is limited mainly to the southern half of Alberta, in the prairie, parkland and foothill zones. Within these areas, their status is adequate. Within the past five years, some regulatory protection has gradually been provided.



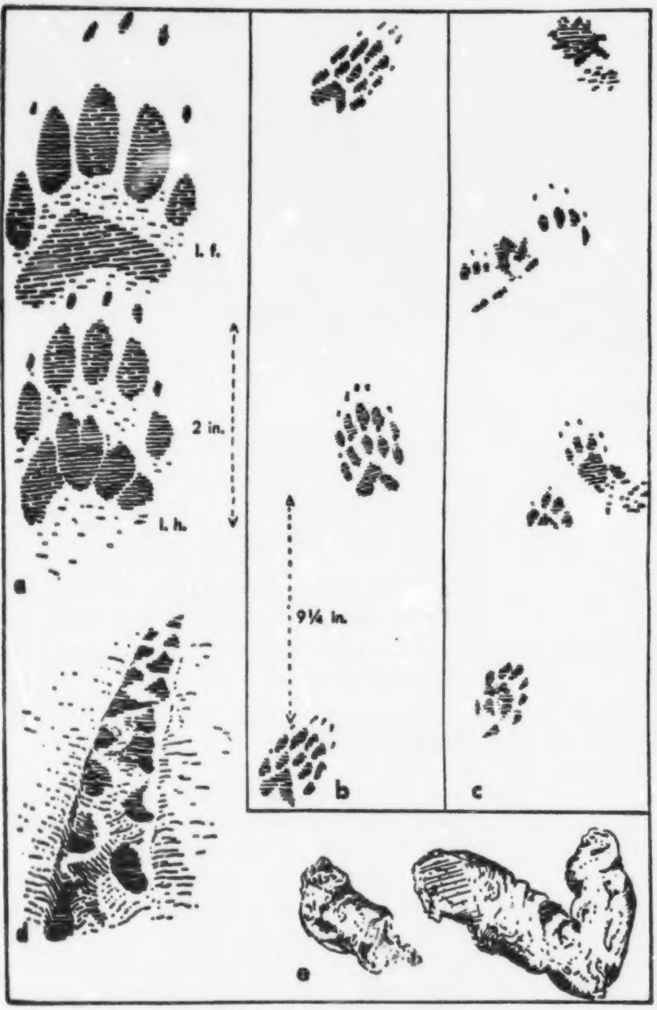
BADGER - RANGE, TRACKS, DROPPINGS


BADGER
(Taxidea taxus)
CURRENT RANGE

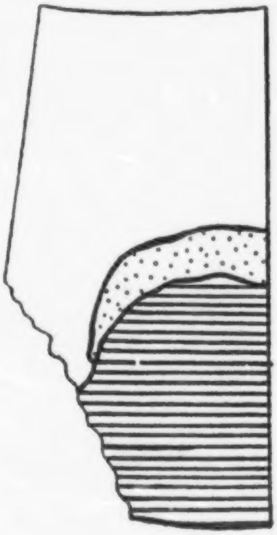




RIGHT FRONT FOOT


l. f.
2 in.
l. h.
a
9¼ in.
b
c
d
e

Badger tracks and scat.



RANGE

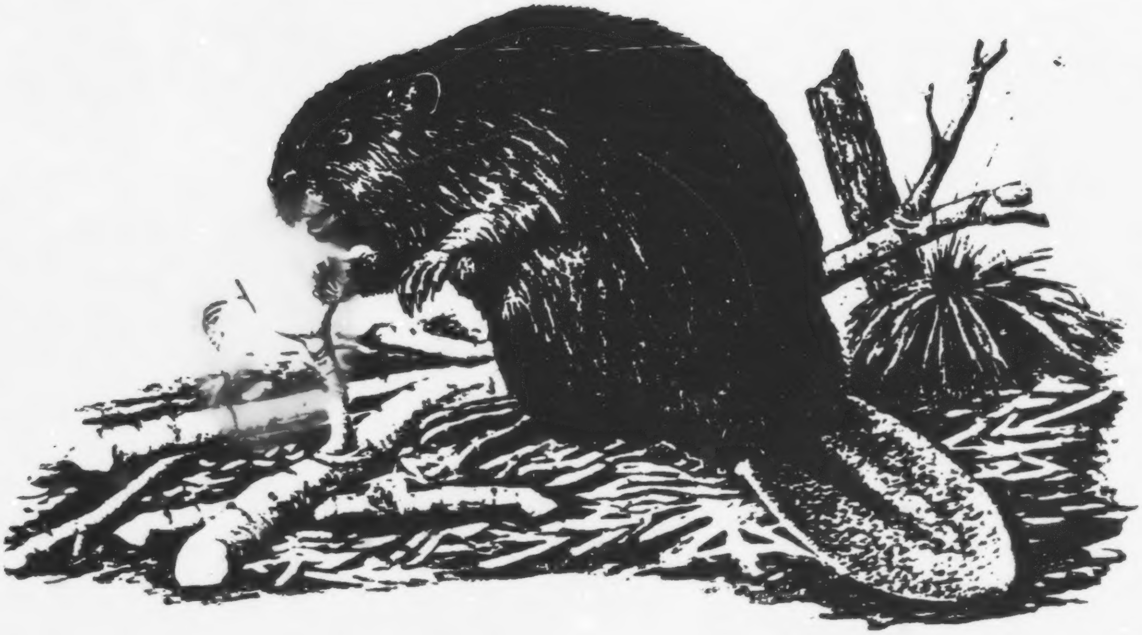
Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ░ Occasional ☐ Rare - Most of area non-existant

a and b. Tracks in dust
c. Tracks on hard snowdrift, fragmentary type often found

d. Badger trail in snow.
e. Badger scat, about ⅔ natural size.

Biology of The Beaver



NAME AND HISTORY

The scientific name for beaver is (Castor canadensis) and the Cree name is Amisk.

The beaver gets his scientific name from its castor glands which occur in both male and female. The beaver is recognized as Canada's national symbol and thus appears on our emblem, stamps and coins.

CHARACTERISTICS

The beaver is a semi-aquatic fur bearer and is North America's largest rodent with an average weight of 35 - 45 pounds, but it has been known to attain weights of up to 100 pounds. It is a dark brown creature with an average length of 40 - 45 inches which includes its tail. The paddle-like tail, scaly in appearance, acts as a rudder for swimming, aids in diving, is a counterbalance when walking or carrying things, and acts as a prop when the animal is chewing on trees. It also uses its tail for warning other beavers of danger. It is a compact, round-like, awkward looking animal when on land, but when freightened, can travel quite quickly for short distances in a bounding gallop. its short, hind legs have large webbed feet which propel it for swimming and support its weight in soft muddy areas. The two inside claws on each hind foot are double and these can move to act like pliers. These special claws are used for combing fur.

Its short, front legs are very dextrous and are used as hands for carrying sticks and stones as well as other materials for dam building.

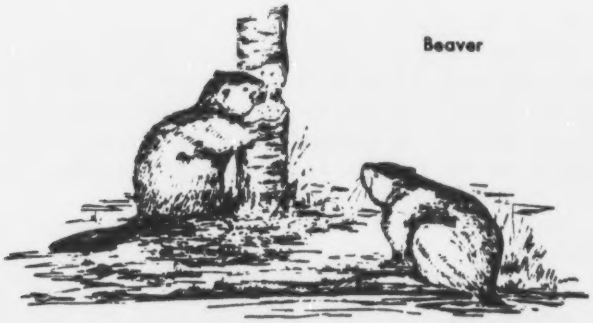
The beavers' eyes are small and round and thus, it has relatively poor eyesight but its hearing is excellent and its sense of smell keen. Its nostrils are small and can be closed for underwater swimming; its ears become tightly closed under water as well. Its lips can close behind its large incisor teeth, thus, it can gnaw under water. The constant growing incisor teeth consist of bone material that is hardest on the outward side, so as the teeth wear away with gnawing, the outer tips of these teeth are kept chisel sharp.

The beavers' fur is very dense and consists of fine under fur of about 3/4 inch in length (when prime), while the outer layer of heavy guard hairs are about two inches in length and give the beaver its color shades. Through much combing and oiling, this this dense fur is made waterproof. The beaver obtains the oil for grooming from two glands near the anus and applies it by using his front and rear legs. Combing straightens the fur and probably removes mites and other insects from the fur.

This remarkable animal is the only animal that can effectively alter its habitat by building dams which it uses to store its food and protect itself from predators. The beaver also builds its own lodges.

REPRODUCTION

The beaver normally has one mate, however, should its mate be killed, it can take another. Females produce the first litter at about 2 - 3 years of age. Breeding season is usually in January-February, with a gestation period of approximately 3 1/2 months (110 days). Kits averaging 3 - 4 per litter are normally born in May-June but litter sizes of up to 8 are possible (depending on available food, etc.). Young can be born at any time up to late summer, should breeding difficulties arise. Kits are born fully furred and their eyes open at birth; they are weaned at about 8 - 10 weeks. They remain with their parents for about two years or until they are driven away. At this time, they migrate along lakes and streams or even across country until they find a mate and a suitable building site for a dam and lodge. They are known to live up to 14 years but the average life span is 5 - 6 years.



Beaver

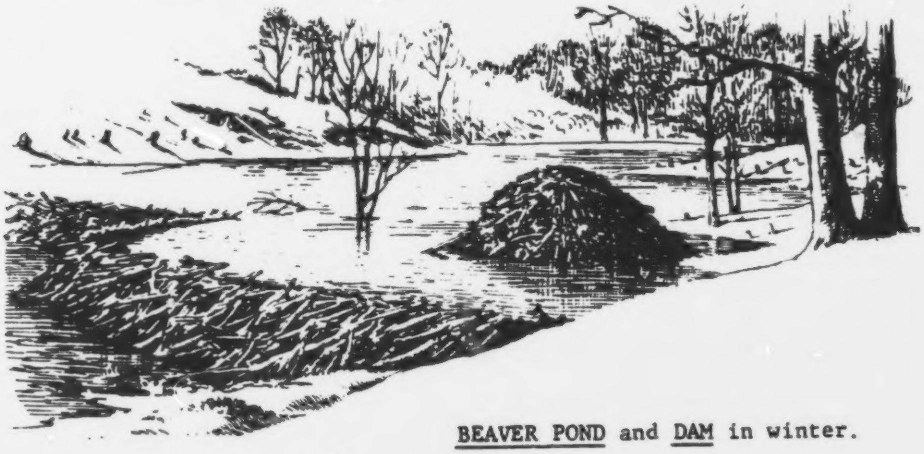
FOOD

The beavers' preferred food is the bark of trembling aspen (white poplar) but it will readily eat bark form black poplar and willows. It can eat various kinds of tree bark and shrubs when forced to and will often use pond lily, various grasses and roots of aquatic plants.

HABITS

Beaver are territorial by nature so considerable fighting occurs, expecially during the spring season. Their territories are marked by scent mounds that consist of dirt pads upon which is deposited an odorous substance secreted by the beavers's castor glands.

Beaver colonies can contain quite a number of animals, but a typical colony consists of one breeding pair and a number of yearlings and kits. The most familiar and distinctive beaver activity is a dam, behind which water accumulates. These dams are made from sticks, grasses, mud and stones and are interwoven in such a manner that can withstand considerable water pressure. There may be a series of dams but the lodge or bank dens are usually located at the main dam. The building of dams is instinctive and will occur wherever beaver are stimulated to build by the sound of running water.



BEAVER POND and DAM in winter.

Gathering of food for the winter supply usually begins in August and is intensified as fall approaches. The food "cache" is built near the lodge and consists of the branches of felled trees. These branches are submerged under the water but the tops of them can be seen above the water level. Beaver are most active from dusk till morning. Although capable of felling large trees, they are not able to fall them in a specific direction.

The beaver is an expert swimmer and has developed extra capabilites. It is able to remain submerged under water for periods of up to 15 minutes. The brain can redirect oxygen away from less vital organs such as the stomach and legs to its more essential organs such as the heart.

Beavers are quiet creatures but gutteral sounds seem to be used as a means of communication. When danger appears, the tail provides a warning to others when it is slapped hard against the water creating a splashing-thudding sound. Normally, beraver do not travel great distances but some tagged beavers are known to have travelled 150 miles.

POPULATION

Water abundance and good food quality will result in an abundant beaver population. When food is scarce and poor, birth rates are low and mortality rates increase. Since they are territorial by nature, only a certain number can be accommodated within a given area or infighting occurs. When populations become dense, habitat deteriorates and mortality increases.

Wolf, bear and coyote are the beavers' main predators but eagles are known to take some, especially kits. Tuleremia, a bacterial disease which produces white spots on the liver and spleen can severely affect their numbers and often entire colonies are wiped out. This disease can be transmitted to humans so caution must be used when handling suspected carcasses. Various other internal parasites are possible but do not cause death in themselves.

HABITAT

Ideal beaver habitat consists of slow, meandering creeks or streams and small lakes with shallow, muddy banks where trembling aspen, willow and shrubs are readily available. Lodges are often found near the outlet of lakes where dams can be built. Along streams, beaver may build a series of dams causing the water to build up which increases the depth and overall surface area of the pond. The flooding which then occurs allows beaver to fall trees which would otherwise be too far from the water. It also assures adequate water depth for the winter's food storage. Beaver dams provide habitat for a variety of species of wildlife including, at times, fish. In Alberta, the parkland mixed wood and lowland life zones are best for beaver habitat. Rocky areas and fast moving streams are least preferred.

ECONOMIC VALUE

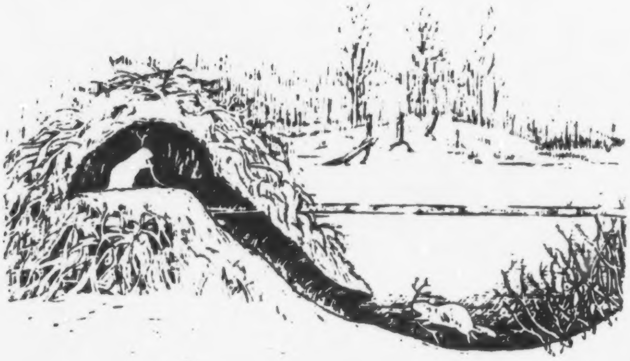
Prior to 1940 when no registered trapping areas existed, beavers were very scarce in Alberta, and had even been eliminated from many parts of the province. Active transplanting, ridgid quotas and sealing of pelts as well as suitable water conditions led to a gradual increase. From a harvest of some 3,500 pelts in 1941 - 1942, the annual take increased to 109,000 for the 1979 - 1980 season.

The beaver has often been the most valuable fur bearer in Alberta and, at times, reached 52% of the total annual fur value. The fur is very durable and is made into coats, hats and trim.

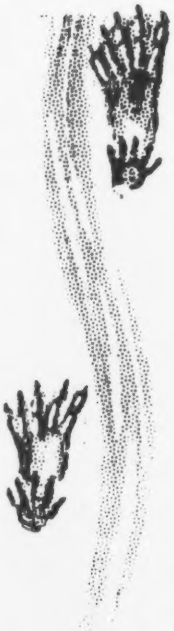
Beyond the economic value, the indirect benefits from beaver dams is immesurable. Water storage, spring run-off control, as well as providing habitat for both birds and animals is a hidden benefit to us. Unfortunately, dams and runways in agricultural areas cause considerable damage to farm lands and roadways. Active trapping and removal of problem beavers from areas when conflicts arise can eliminate and avoid potential problems.

DISTRIBUTION AND STATUS

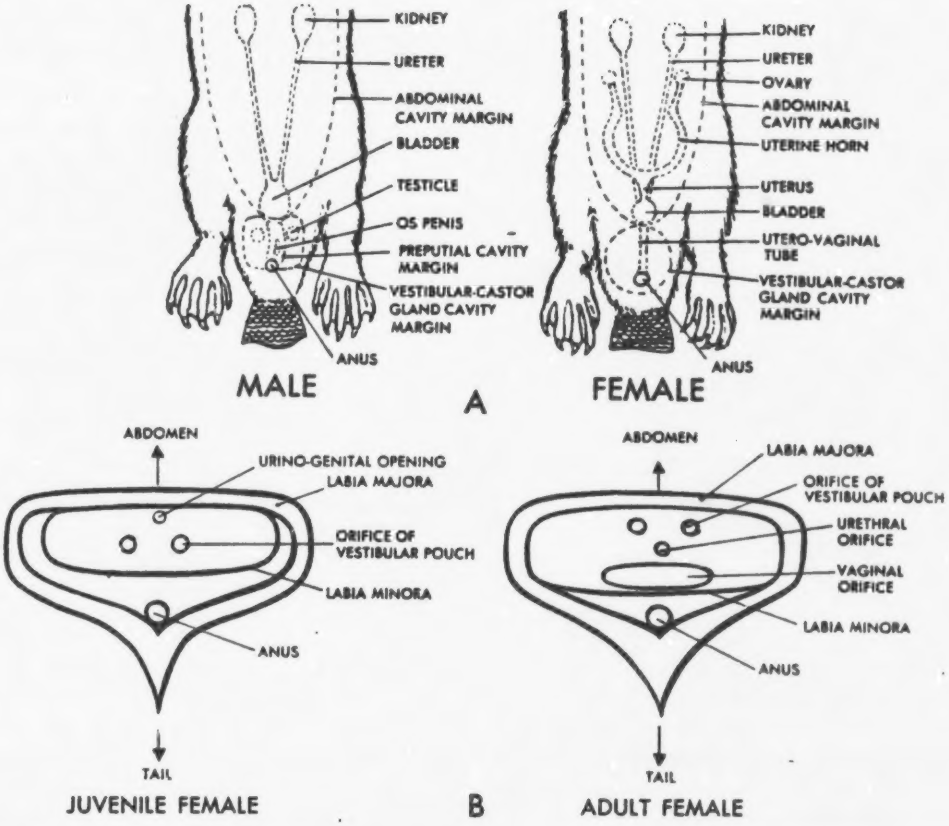
Beavers are found throughout Alberta but are scarce in mountainous areas and in the open prairies unless streams and gullies are present. Their status, at present, is abundant to overabundant in many areas and a larger harvest of beaver can occur, especially in the agricultural areas of Alberta.



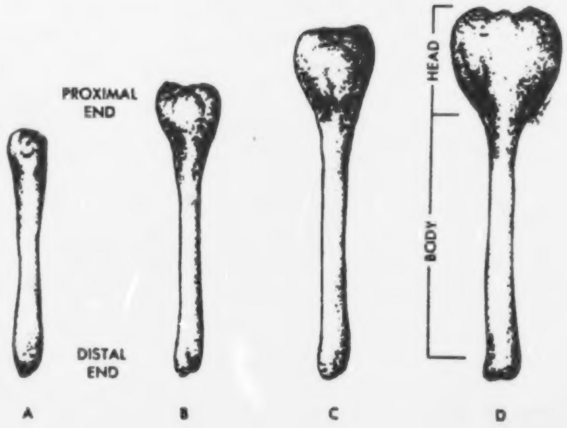
CROSS-SECTION OF BEAVER LODGE



TRACKS

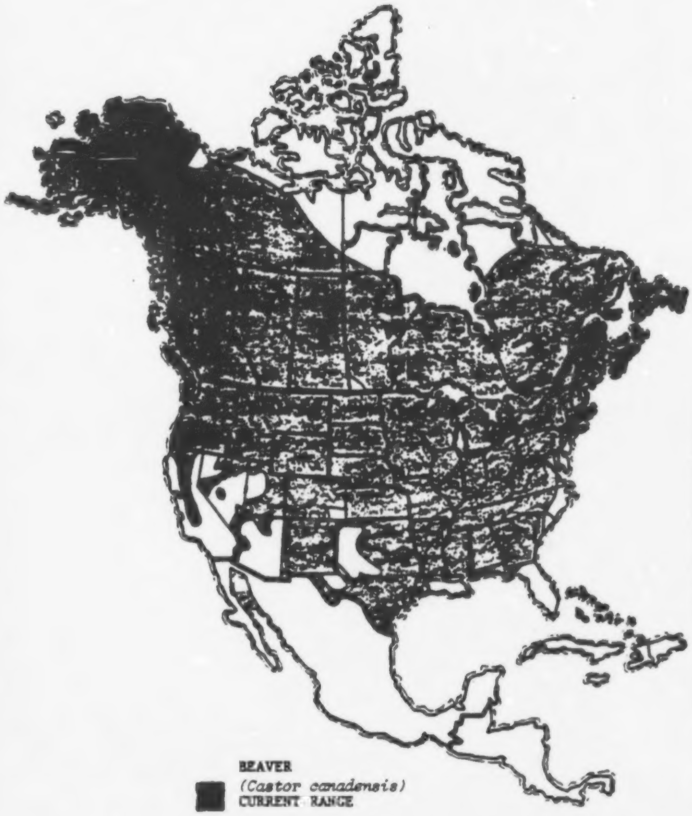

KIDNEY
URETER
ABDOMINAL CAVITY MARGIN
BLADDER
TESTICLE
OS PENIS
PREPUTIAL CAVITY MARGIN
VESTIBULAR-CASTOR GLAND CAVITY MARGIN
ANUS
MALE
A
KIDNEY
URETER
OVARY
ABDOMINAL CAVITY MARGIN
UTERINE HORN
UTERUS
BLADDER
UTERO-VAGINAL TUBE
VESTIBULAR-CASTOR GLAND CAVITY MARGIN
ANUS
FEMALE
ABDOMEN
URINO-GENITAL OPENING
LABIA MAJORA
ORIFICE OF VESTIBULAR POUCH
LABIA MINORA
ANUS
TAIL
JUVENILE FEMALE
B
ABDOMEN
LABIA MAJORA
ORIFICE OF VESTIBULAR POUCH
URETHRAL ORIFICE
VAGINAL ORIFICE
LABIA MINORA
ANUS
TAIL
ADULT FEMALE

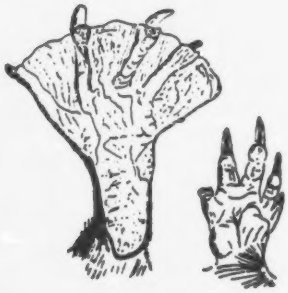
Some age and sex characters of beaver. *A* Schematic representation of penis and testes in the vestibularcastor cavity of male *(Left)* and normal position of the uterus of the female *(Right)*. Dissection is required to identify these organs. *B* Diagramatic representation of the anal-uriogenital opening when stretched laterally as by the forefingers. This procedure can be performed on live or dead beaver (sketches by G. J. Knudson *in* Thompson 1958).


PROXIMAL END
DISTAL END
HEAD
BODY
A
B
C
D

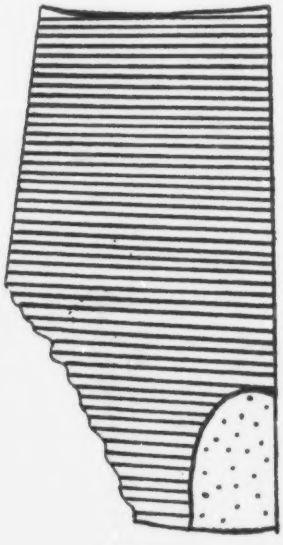
Age determination of summer-trapped beaver. The tail of the baculum reaches its definitive shape and size in the yearling class, the body in the larger forms of the two and three-year olds, and the head continues to develop even in the four-year old and over class. *A* Immature (kit); *B* Yearling; *C* 2- and 3-year old; *D* 4-year old and over (after Friley 1949, from Godin 1960).

BEAVER - RANGE, TRACKS, DROPPINGS


BEAVER
(Castor canadensis)
CURRENT RANGE



Hind foot and forefoot of Beaver



RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ⁙ Occasional ☐ Rare - Most of area non-existant

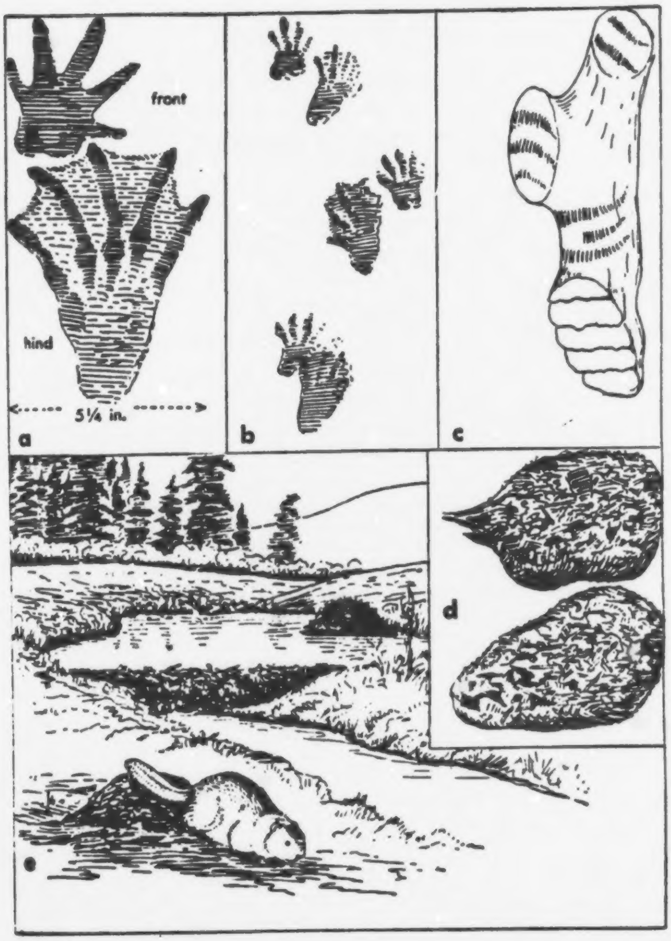
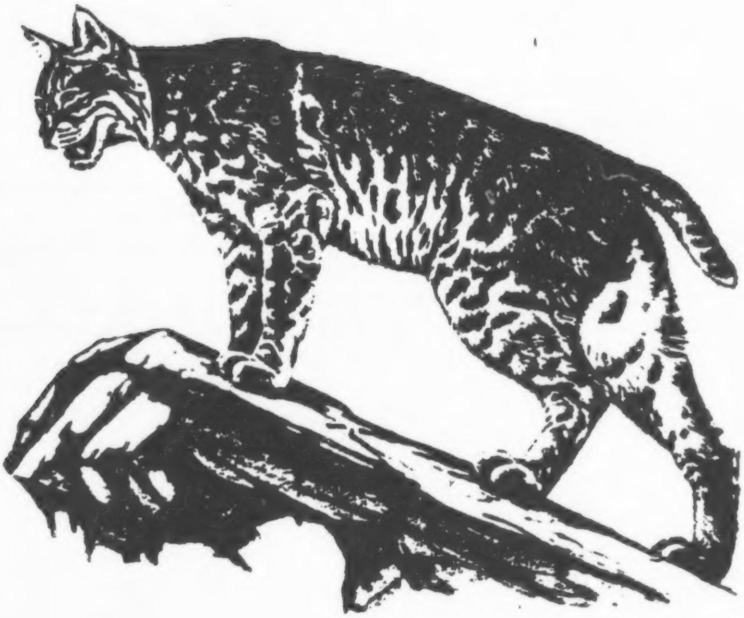

front
hind
5¼ in.
a
b
c
d
e

Fig. 87 Beaver sign.

- a. Tracks in mud. Hind track, 6 to 6½ in. by 4¾ to 5¼ in.; front, about 3 in. long
- b. Trail, with track intervals of about 3 to 5½ in.
- c. Tooth marks, natural size.
- d. Scats, natural size.
- e. Beaver dam, pond, and lodge, with beaver leaving scent mound in foreground.

Biology of The Bobcat



NAME

The bobcat is a member of the cat family or (Felidae) and is closely related to the lynx. Its common name is derived from the short, bobbed tail. It is also commonly called wild cat, lynx cat and catamount. The scientific name is (Lynx rufus). Rufus means reddish and refers to the reddish colour of the bobcat's summer coat.

CHARACTERISTICS

The bobcat looks much like its close cousin, the Canada lynx, but is smaller and more slender, has less prominent ear tufts and its legs are shorter with much smaller feet. The tail is barred with white on the underside, unlike the full black tip found on the lynx. The coat is more distinctly spotted and has a reddish tone, especially in summer. In winter, the coat is lighter in colour. In arid areas, the fur is often buff coloured, while in heavily forested areas, it is much darker.

The bobcat has extremely keen eyesight and hearing which are its principle means of detecing prey. The sense of smell is fair but not as highly developed as in the dog family.

The male may be from 34 - 49 inches in length and weigh about 28 pounds. The females are 29 - 37 inches in length and weigh up to 15 pounds.

REPRODUCTION AND NATURAL HISTORY

Bobcats reach sexual maturity at about one year of age. The mating season usually occurs in February-March, the gestation period is 60 days, and from 2 - 4 kittens may be born in May. Females may rear 2 litters in a season if conditions are favorable. Males may assist in rearing the young by bringing food to the den, but in most instances, there is no permanent bond between males and females. The young are spotted at birth and have distinct facial markings. They are weaned at 2 months of age. Females are protective of the young but may abandon the den if disturbed. The young can fend for themselves by fall. The life expectancy of bobcats in the wild is 10 - 15 years.

FOOD

Bobcats prey on mice, rabbits, hares, squirrels, muskrats, shrews, chipmunks and other small mammals. Birds and their eggs and carrion are also eaten. They are capable of occasionally killing deer that are wounded or in deep snow. The bobcat hunts mostly by chance encounter, using its keen vision and hearing to detect prey and then carefully stalking it, or by waiting in ambush and pouncing on prey as it passes by.

HABITS

The bobcat is a shy, solitary, elusive animal which mainly hunts at night, but may be seen abroad in daylight, particularly in winter. The bobcat is a good climber and will also swim if pressed. Bobcats may travel great distances at times, but generally stay within a fairly restricted home range of about 3 square miles. The size of the home range may vary somewhat according to food supply and the proximety to a mate. Bobcats may travel up to 7 miles in a single night.

Bobcats are sometimes heard caterwauling like an alley cat. They scream especially during the mating season. Spitting, snarling, purrs and meows much like house cats are also in their reprotoir of sounds.

Bobcats maintain regular travel routes marked by urine scent posts. They are strong, furious fighters when cornered or trapped and are not submissive as is the lynx.

POPULATION

Bobcats have few enemies; man and dogs are the principle ones. They are affected by feline distemper, mange, rabies, leptospirosis and a few other diseases and parasites, but the main factor limiting their numbers is the availability of food.

HABITAT

The bobcat usually avoids heavy forests, prefering more thinly treed areas, rocky hillsides and dry coulees. They are sometimes found in broken, mountainous country. They have adapted more to agricultural and more populated areas than the lynx. Bobcats also do well in arid regions or in areas that have been logged, providing small openings in the forest. Bobcats may den up in rocky crevases or under dead falls.

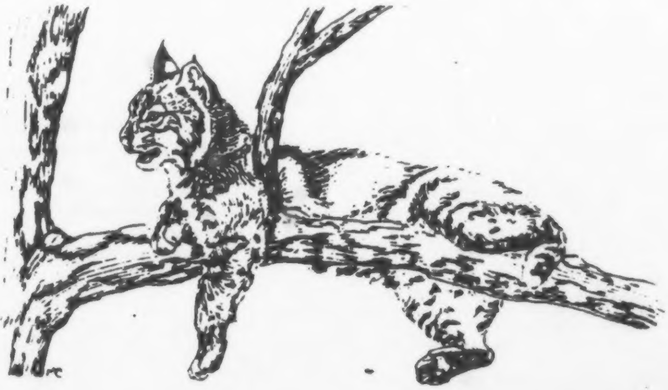
ECONOMIC VALUE

The bobcat is not of major economic significance in Alberta due to its limited range and numbers in this province. The fur is of good quality and is used for trimming coats and collars but only a very few pelts are taken each year in Alberta. Where the bobcat occurs, it is valuable for its rodent hunting activities.

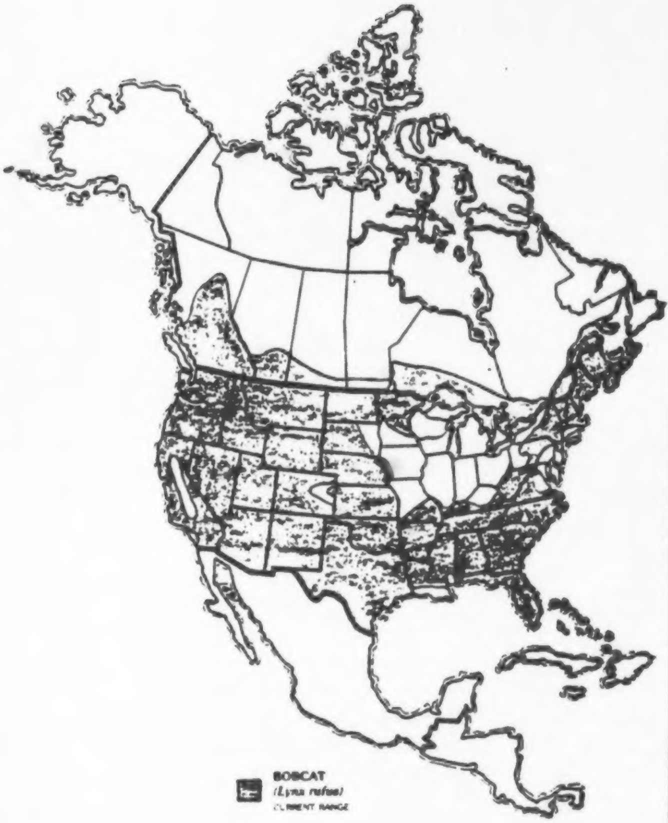
DISTRIBUTION AND STATUS

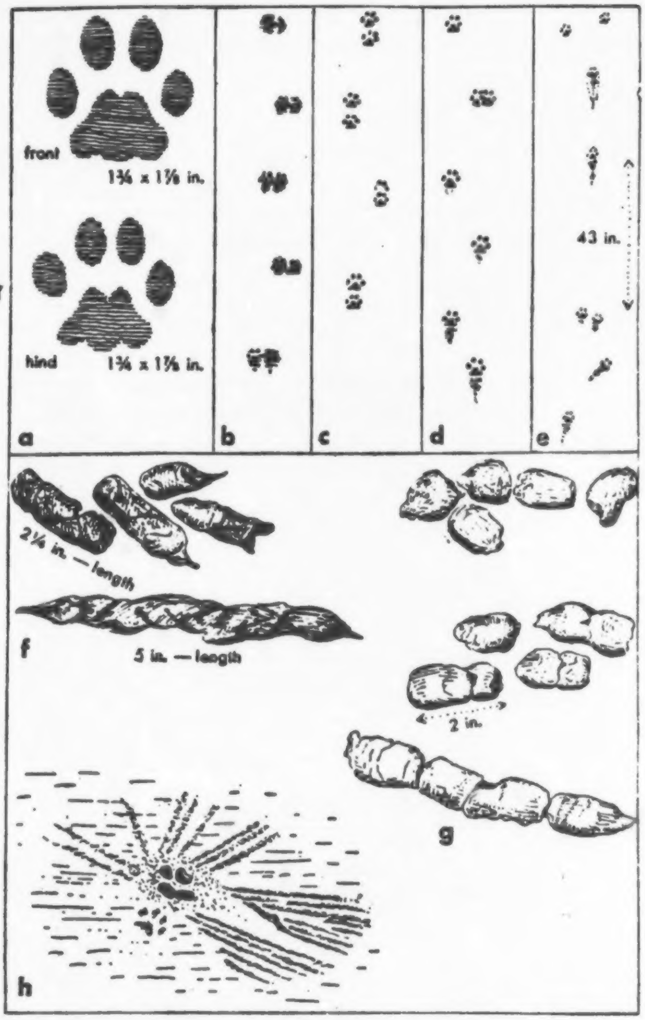
Bobcats are found in only the most southerly parts of Canada and throughout most of the United States.

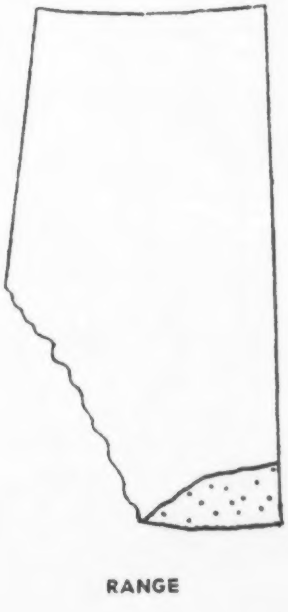
In Alberta, they are only found in the extreme south portion of the province. The bobcat is still comparatively rare in Alberta and is unlikely to extend its range much further north than from where is is presently found.



BOBCAT - RANGE, TRACKS, DROPPINGS


BOBCAT
(Lynx rufus)
CURRENT RANGE


front
1¾ x 1⅞ in.
hind
1¾ x 1⅝ in.
43 in.
a
b
c
d
e
2¼ in. — length
f
5 in. — length
2 in.
g
h



RANGE

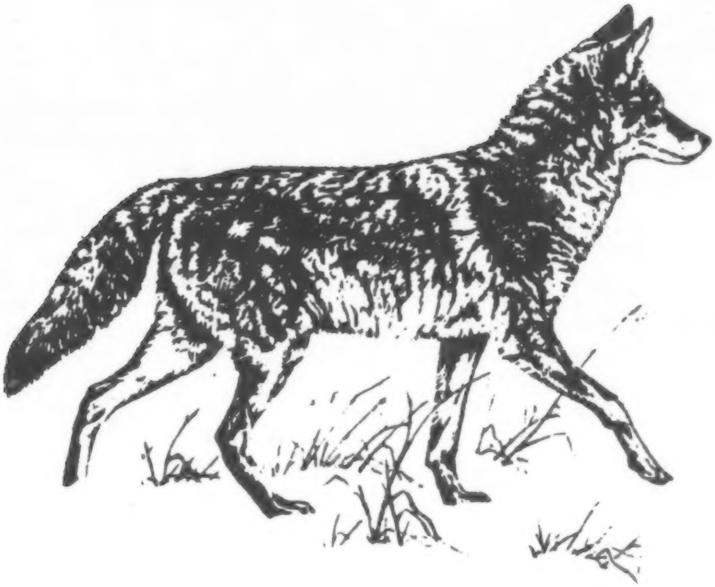
Wildcat sign.

a. Typical tracks.
b. Walking track pattern, stride 9 to 14 in.
c and d. Other variations in walking patterns: c, stride 10 in., d, stride 13 to 16 in.
e. Galloping pattern
f. Two scat samples
g. Three samples
h. Wildcat "scratching"

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ░ Occasional ☐ Rare - Most of area non-existant

Biology of The Coyote



NAME AND HISTORY

The coyote's scientific name is (Canis latrans), and its Cree name is Mastucha Kunis.

The coyote was named by the Aztec Indians of Central America. It is a relative of the wolf and fox. Other names for the coyote include"bush wolf" or wolf; its scientific name means "barking dog".

CHARACTERISTICS

The coyote is much like a German Shepherd dog in appearance, with lengthy, thick hair, slender, pointed nose, erect ears and a large, bushy tail. It is a relative of the wolf but much smaller, however, it is often mistaken for a wolf.

There appear to be three subspecies of coyotes in Alberta; they are the Prairie, Northwestern and Mountainous coyote. All three are very similar in size with the general differences being that the Prairie are lighter (paler) colored, the Northwestern has often cinnamon or reddish-brown streaks, while the Mountainous is very dark. Their average length (including the tail) is 44 - 54 inches and their average weight is around 30 pounds. Males tend to be larger than females.

The coyote runs with his tail pointed downward whereas the wolf often runs with his tail pointed upward. Hybrids called "coy dogs" occur when cross-breeding with dogs takes place. These offspring show greater variations in the hair color.

REPRODUCTION

A female coyote begins breeding just prior to being two years old. The heat period is usually during January - March. During early April, the female will begin to clean out dens or burrows where the young (pups) will be born, usually in late April or early May. The gestation period is about 63 days, with the average litter being 5 - 6 pups, however, litters of up to 19 have been reported. The pups remain blind for the first 10 days of their life. They are weaned by 5 - 8 weeks, during which time they begin to leave the den and explore the immediate vicinity. By mid July or when they are half grown, they begin to run with their parents and learn the art of hunting and self preservation. By late fall, they are fully grown.

The life expectancy of a coyote in the wild can reach up to 9 years, however, in captivity, they can live up to 15 years.

FOOD

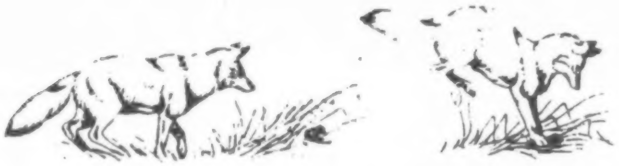
The coyote will eat whatever is available which would include plant matter, but he prefers meat. Being an active hunter, his favorite prey is mice, gophers, rabbits and other small rodents as well as birds and their eggs. Occasionally, when hunting in pairs or groups, they do kill deer, antelope and domestic animals such as sheep and calves. They are carrion eaters and when this is finished it could lead them to sources of food readily available from farm yards; thus, they become a problem to livestock raisers. They will readily eat insects, reptiles, berries and grain, and surplus food is often cached.

HABITS

Coyotes are social animals but do maintain a home territory of about 10 miles when food is available. The home territory is marked by urinating on stumps, rocks, digging sites and new feeding sites. They are most active at night, early morning and late evening but they are occasionally seen during the day when hunting for food. They are very vocal animals and are especially noisy during the breeding season. The familiar howl of the coyote can change to short nips and barks. Usually, a coyote chorus of howls will soon be heard when one starts up.

Coyotes usually travel at a steady lope and can run at speeds of up to 30 miles per hour, but when chased, they can run faster for a short while. They are good swimmers and will even catch the occasional fish.

They are very adaptable and can readily live in semi-urbanized areas, and thrive near farms and livestock areas. Occasionally, some will take off from this home range and have been captured some 400 miles away.



THE COYOTE'S METHOD OF CATCHING A MOUSE

POPULATION

Food supply will determine the number of coyotes in a particular area. When rabbit and mouse populations are low, litter size will decrease. However, since coyotes eat a variety of foods, the varience in their population would not be subjected to immediae drastic changes, but takes place over a longer period of time. Mortality among the young increases considerably in times of food scarcity and many will die before they reach the age of one year.

Coyote populations are also affected by various parasites and diseases such as mange, fleas and ticks as well as distemper and tularemia. Rabies is rare in coyotes, however, does occur and trappers handling suspected animals must be extremely careful. The coyote's chief predator is man, who traps, hunts, and at times, poisons them. Some evidence appears to exist to suggest wolves will also control the number of coyotes in wooded areas.

In order to control the predation on livestock, the Government assists landowners in removing the problem animals with the services of predation specalists. Farmers are also eligable for compensation when livestock is lost to predation.

HABITAT

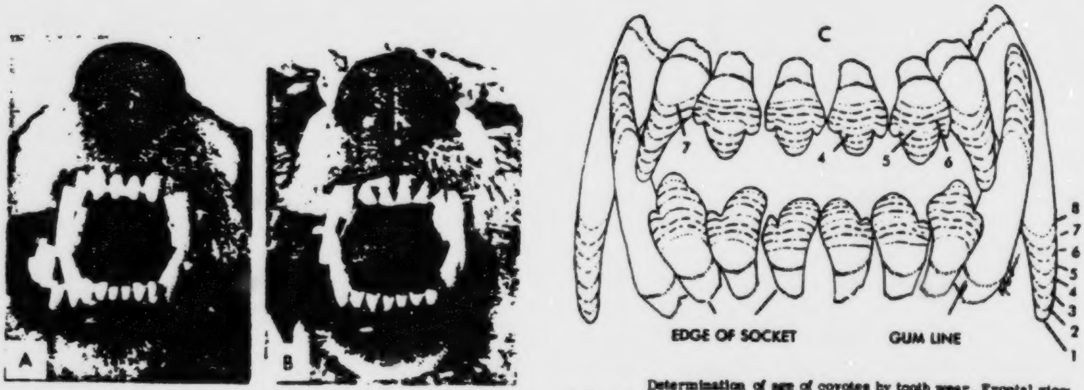
The preferred habitat for coyotes is along marginal farm lands, pasturelands, mixed farming areas, game preserves and areas near cities and towns. Open forest edges also attract coyotes. Rolling hills, creek valleys, coulies and shores of lakes are natural for them. Denning sites are found in concealed spots, mainly on brush covered slopes, steep banks and rocky ledges. The actual dens may be about three feet in diameter.

ECONOMIC VALUE

Since the early 1970's, the value of long fur has increased many fold. The coyote fur therefore, has been in good demand. In the past 10 years, it has been the single most valuable fur producer species three times and has accounted, at times, for up to 36% of Alberta's annual fur value. Its fur ranges from silky (usually female) to a course texture. It is used for coats and trim material.

The lighter, silkier coyotes from the prairie are most in demand. Over half of the coyotes taken in Alberta originate from resident trappers.

Besides the economic value, recreational hunting of coyotes is becoming a more popular sport. The overall benefits of controlling gophers, mice and other rodents are often overlooked.

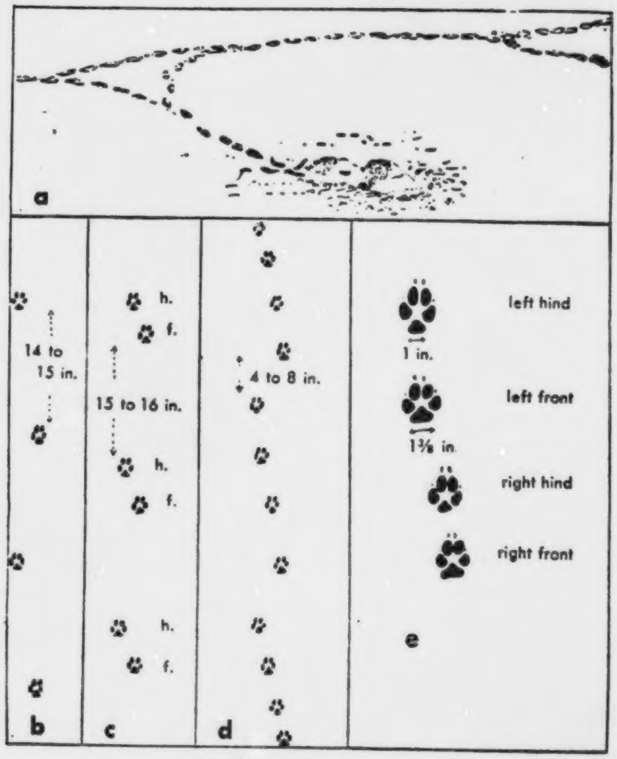


Determination of age of coyotes by tooth wear. Frontal view of the teeth of coyotes aged as follows: *A* 2 years; *B* 5 years; *C* composite drawing made by superimposing pictures like A and B to show extent of annual wear.

DISTRIBUTION AND STATUS

The coyote is found throughout Alberta, however, is most prevelent in the parkland zone of the province. Foothills, prairie and mixed wooded zones are also well populated. The mountainous and north-east part of the province are least populated.

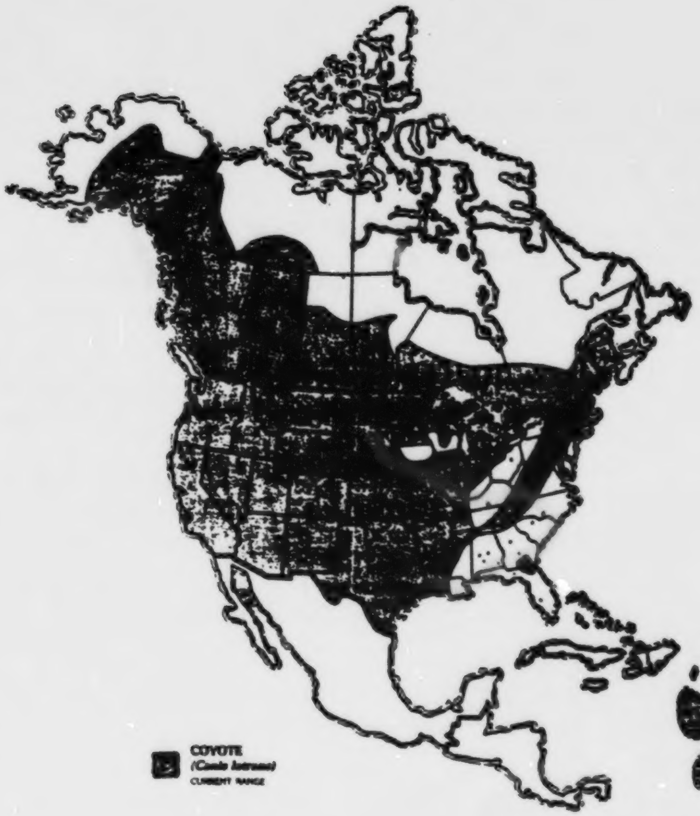
Although coyote numbers abound, the importance of its fur value has changed its status from once being a complete pest to a desired fur species. As such, gradual regulation changes have taken place that provide increased protection in order to avoid over exploitation.

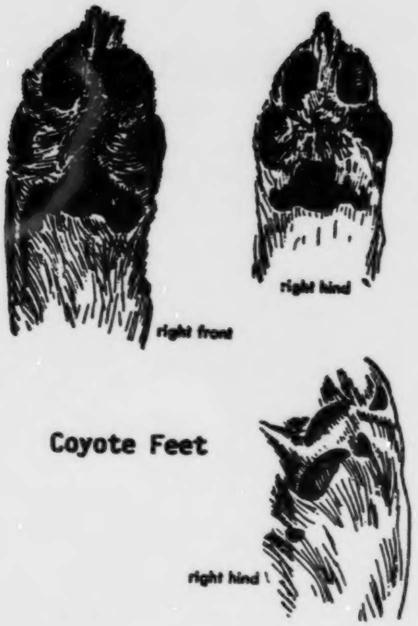

a
14 to 15 in.
h.
f.
15 to 16 in.
h.
f.
h.
f.
4 to 8 in.
left hind
1 in.
left front
1⅜ in.
right hind
right front
e
b
c
d

Coyote tracks.

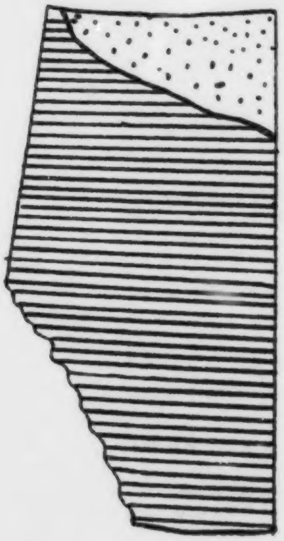
a. Coyote trail, showing excursions to one side of route to dig in the snow.
b. Walking gait. c. Trotting gait. d. A slow lope.
e. The lower series in *d*, to show details and order of front and hind feet.

COYOTE - RANGE, TRACKS, DROPPINGS


COYOTE
(Canis latrans)
CURRENT RANGE


right front
right hind
right hind

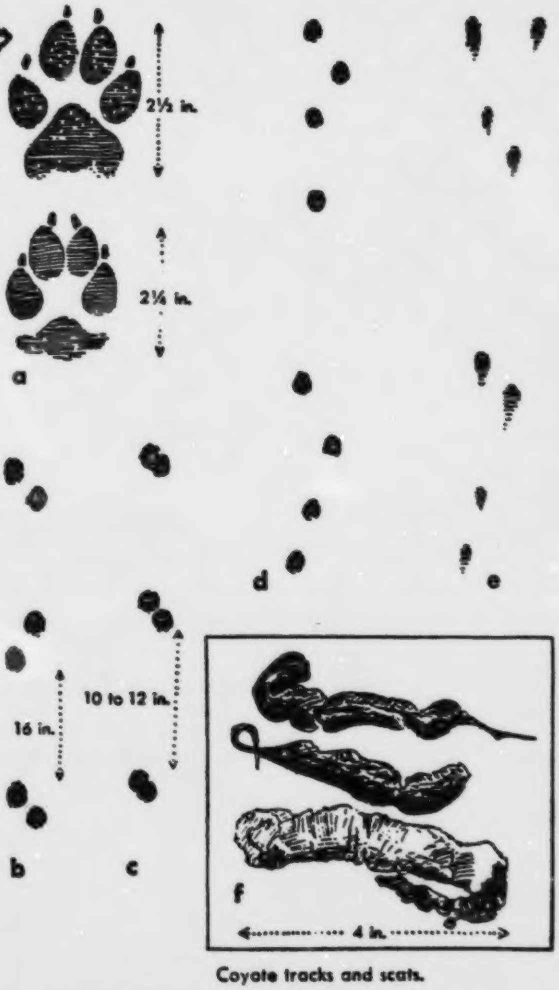
Coyote Feet



RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

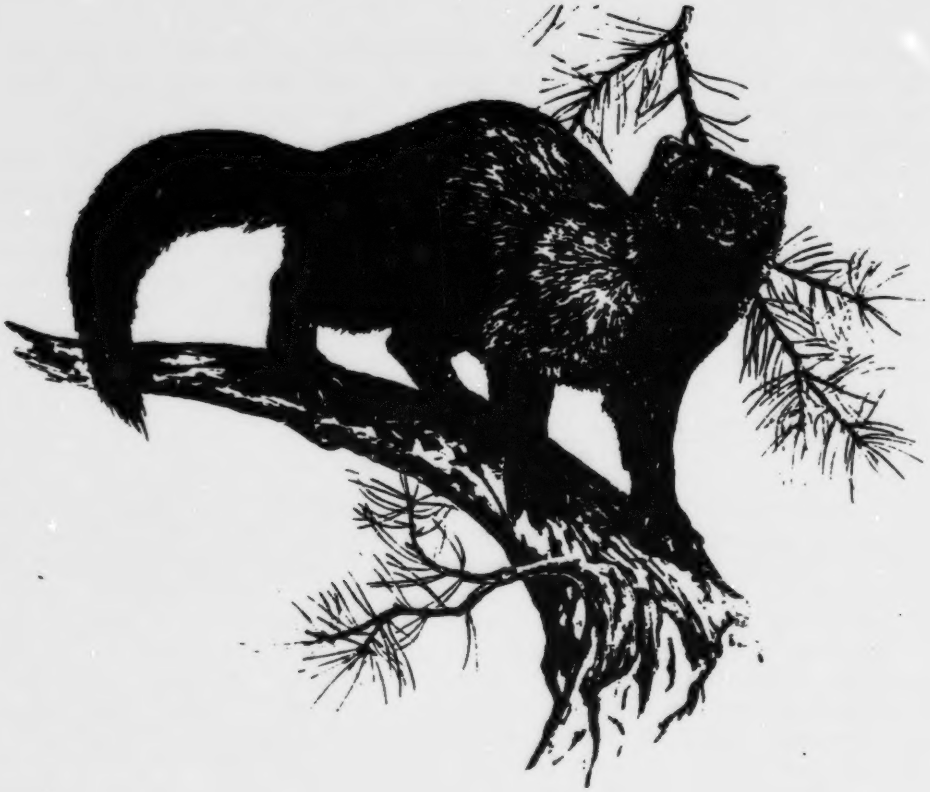
▤ Common ⁘ Occasional ☐ Rare - Most of area non-existant


2½ in.
2⅛ in.
a
b
c
d
e
f
16 in.
10 to 12 in.
4 in.

Coyote tracks and scats.

a. Tracks in mud. Upper, front; lower, hind
b and c. Easy lope. d and e. Gallop.
f. Two types of scats.

Biology of The Fisher



NAME

The scientific name for the fisher is (Martes pennanti). It is a member of the Mustelidae or weasel family. Although it is called fisher, it rarely eats fish, rather, its name is derived from the "fitche" or polecat of Europe. It is also commonly called "pekan" or "pennants Marten".

CHARACTERISTICS

The fisher is a large marten. In size, it is about 30 - 40 inches long, including a 13 - 15 inch tail. Males weigh 8 - 12 pounds and are significantly larger than the females which weigh 4 - 6 pounds.

The fisher is powerfully built with an almost wolf-like head but with smaller, rounder ears. The body is long and slender but well musceled. The legs are short and the feet have poorly developed center pads; the claws are not retractable.

The tail is long, well furred and tapering. The fur of the male is coarse and grizzled, with grey on the head and upper body, becoming darker toward the legs and lower back and the tail is almost black. There is often a white patch on the throat. The females have silkier, darker fur. Older fisher tend to be more grizzled than younger ones. When overprime, the fur has a strong tendency to take on a reddish or rusty colour, which greatly reduces the value. The fisher have scent glands on the pads of the hind paws and at the base of the tail or anus; these are used to mark their teritories. Fisher moult in the spring and fall. The fur is at peak primeness in November and deteriorates after January.

REPRODUCTION AND NATURAL HISTORY

Both sexes are reproductively mature at one year of age. Breeding occurs in April and both sexes may have more than one mate. Fisher have "delayed implantation" with a gestation period of about 51 weeks, but the active pregancy lasts only 8 weeks. Litter size ranges from 1 - 5 with the average being 3 young. The young are blind and helpless at birth, but can see by 1 1/2 months. Weaning occurs at about 4 months but they may begin taking meat before they are completely weaned. Fisher may live up to fourteen years, but the average is 4 - 5 years. Females tend to outlive males. Juveniles can be distinguished from adults by the development of a bony crest on the skull which becomes progressively larger with age and is particularly pronounced in males.

FOOD

The fisher will eat a wide variety of small animals, including mice, squirrels, hares, birds, birds' eggs, insects, etc. It is one of the few animals capable of killing porcupines without harming itself. If some quills do become enbedded, they do not seem to fester as in other animals and eventually work their way out. Fisher will also feed on carrion and at certain seasons, eat a lot of berries.

HABITS

The female and young travel together for a time after leaving the den but disband in the fall. Adult fisher lead solitary lives except for brief periods during the mating season.

They keep on the move almost constantly and tend to travel in rough circles of 4 - 12 miles, repeating the circuit every 4 - 12 days. They are most active at night but are sometimes seen abroad in daylight. They are good tree climbers and swimmers but mostly travel on the ground. The home range of the males is approximately 9 square miles and females 6 square miles. These are marked with scent and may vary in size depending upon the quality of the habitat and availability of food. Fisher are great travellers and are curious animals, so are readily attracted to bait and are easily trapped.

POPULATION

The harvest of fisher tends to fluctuate according to trapping pressure and climate or habitat changes. Parasites and diseases seem to have little impact on fisher populations.

In early winter, there is a large number of immature animals in the population which are dispersing to find new territories; they are inexperienced and easily trapped. By harvesting fisher early in the season, the trapper can remove these largely surplus, non-breeding animals (most of which would not survive the winter) and thereby protect the valuable adult breeding stock because they are less likely to be caught, due to the younger animals getting into the trap first. By removing these animals, more food and space becomes available to the remaining population. Restocking programs have proved to be successful in many areas of North America.

HABITAT

Fisher prefer heavily forested areas with extensive coniferous growth. They are adaptable and will inhabit a wide variety of habitat types if the food supply is adequate. Fisher den under brush or log piles or in hollow trees.

ECONOMIC VALUE

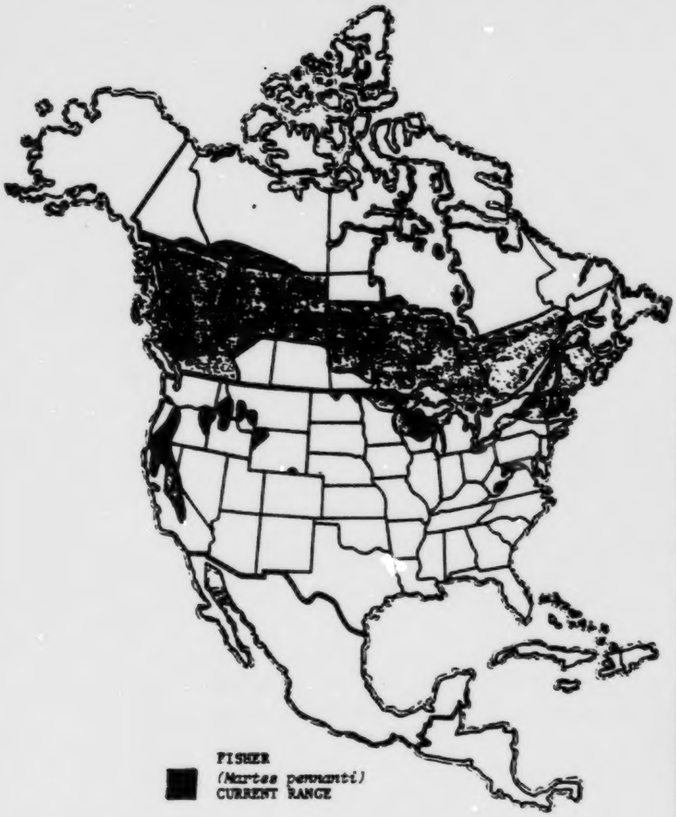
The fur of fisher is very durable and commands a high price. The pelt of the female, though much smaller than the male, is silkier and lighter and usually more valuable than that of the male. The fur is used for garments. Fisher account for from 2 - 4% of the total fur revenues of Alberta.

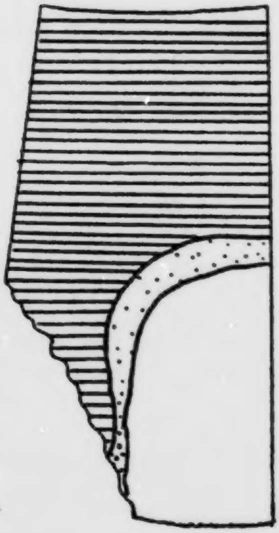
DISTRIBUTION AND STATUS

Fisher are widely distributed throughout the northern and western forested regions of Alberta. They are found throughout the coniferous forest belt of Canada, except for Newfoundland and Prince Edward Island, and in some areas of the United States. They do not range as far north as the marten and are rare in the North West Territories and the Yukon.

Their status in Alberta is good to adequate in some areas of their range to scarce in other locations. Fisher have recently been reintroduced to the south western slopes or Kananaskis region of Alberta.

FISHER - RANGE, TRACKS, DROPPINGS

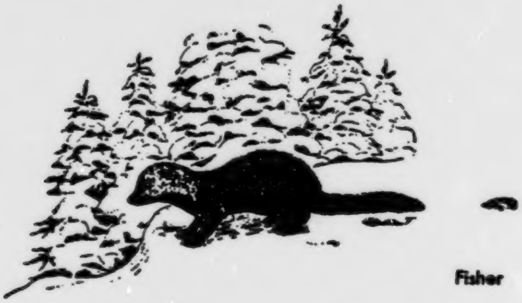

FISHER
(Martes pennanti)
CURRENT RANGE

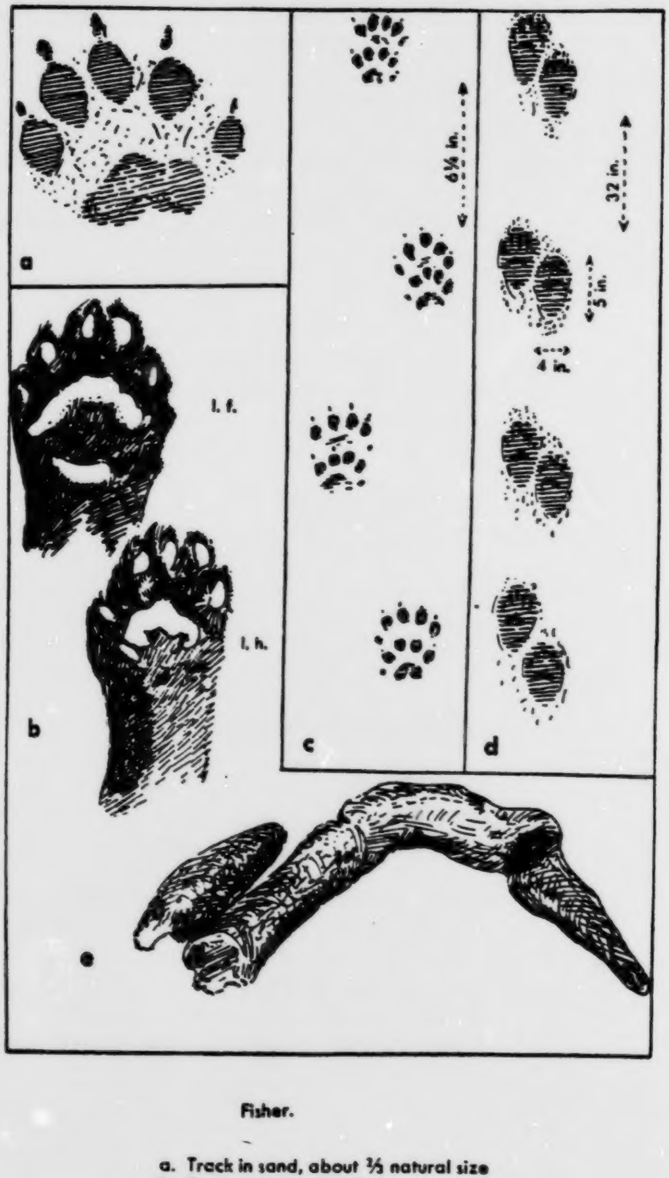


RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ⁚ Occasional ☐ Rare - Most of area non-existant

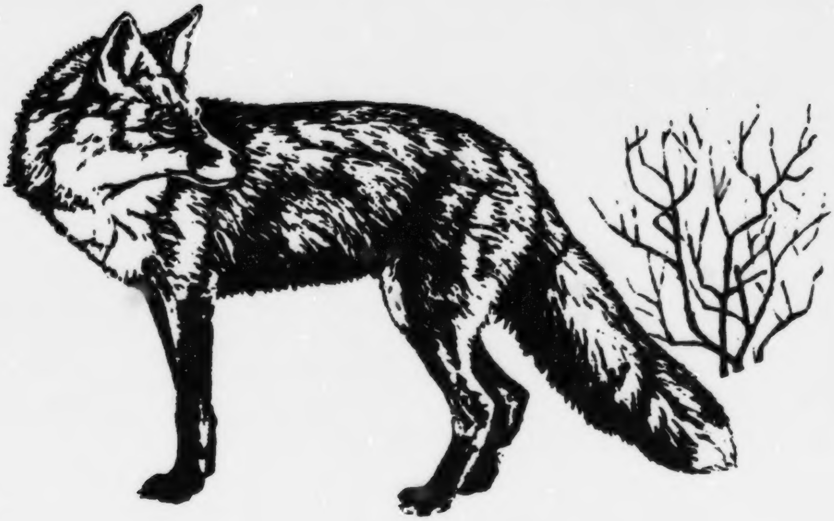



a
b
l. f.
l. h.
c
6½ in.
d
32 in.
5 in.
4 in.
e

Fisher.

- a. Track in sand, about ⅔ natural size
- b. Front and hind left feet.
- c. Walking tracks, in mud
- d. Common running gait in snow
- e. Scat, reduced about ⅓ in size

Biology of The Red Fox



NAME

The red fox is a member of the dog family or Canidae which derive their name from their prominant eye teeth or canine teeth. The scientific name for the red or coloured fox is (Vulpes vulpes).

CHARACTERISTICS

The red fox looks like a small dog and moves with an almost cat-like grace. They are about 41 inches long including the 16 inch tail. They stand about 14 inches high and weigh up to 14 pounds; the males usually being larger and heavier than females. The fox has large, pointed ears, keen hearing and a sharply pointed nose indicating its acute sense of smell. It also has sharp eyesight. Its legs are long, with small padded feet and non-retractible claws. The tail is large and bushy and used to keep the nose and feet warm when curled up.

There are three main colour phases of the red fox, ie: the red, the cross and the silver phase. These are all the same species and in fact, all three variations may occur in the same litter. Also, just about every possible colour gradation from straw red to cherry red through to black can occur. The red phase is commonest in the south, with the cross and silver becoming more common as one progresses northward.

The fur is long and silky with a thick under fur overlaid by guard hairs when prime. The legs are black in colour and the tail is also darker with a white tip. The chin, muzzel tip, throat and belly are creamy white; the ears are white inside and black outside.

The silver fox is mostly black with a frosting of white guard hairs and the cross fox is denoted by a darker band across the shoulders and down the back. The fox doesn't undergo any seasonal variation in colour but moulting occurs in the spring and fall and the fur is best in early winter.

REPRODUCTION AND NATURAL HISTORY

Fox can breed at one year of age. Males begin to search for mates in late November or early December and breeding occurs in January or February.

There is a gestation period of 49 - 55 days and the young are usually born in March or April. At birth, the young are well furred and the litter size varies from 6 - 8 pups. The young are born in earth dens dug in sandy soil. The pups are weaned at 8 weeks of age. If there is a disturbance in the area, the vixen will move the pups to a new den. Gradually, the young venture further from the den and eventually join the parents on hunting excursions. By fall, they are nearly full sized and are fully coloured.

The young disperse from the home range in the fall in search of new territories. Females disperse short distances from the home area - up to 30 miles, but males have been known to travel as far as 300 miles from the area they were born in.

The life span of foxes in the wild averages 5 - 6 years.

FOOD

Foxes will eat almost anything but mostly concentrate on small animals such as mice, chipmunks, squirrels, woodchucks, hares, muskrats, etc. Birds, insects and berries are also eaten. The fox will also feed readily on carrion and often follows wolf packs to clean up the remains of kills.

The fox will often cache extra food for future use. When hunting, the fox follows a regular beat, carefully checking likely spots for small rodents. It captures these by zeroing in on the sound or smell and then pouncing, crushing them with all fours. Foxes may also team up to chase hares or wait in ambush for woodchucks, etc.

HABITS

Foxes are intelligent animals with extremely keen senses. They are very adaptable and seem to have adjusted well to the presence of man, and thrive in agricultural areas.

They seem to prefer mixed terrain of open fields and forested areas, but can also be found in unbroken forest.

They do not den near coyotes and in most areas where coyotes are plentiful, they seem to have displaced the fox.

Foxes mate for life and the pair share the same home range; they travel together most frequently during the breeding season but seem to keep track of each other through scent posts and vocal calls during other seasons.

The home range is from 1 - 3 square miles and is marked by scent, urine or droppings; they also mark food caches in this manner.

A fox is most active in the evening or at night. It is a shy, retiring creature and can run at speeds up to 26 miles per hour. It can also swim readily.

The fox has scent glands at the base of the tail and on the foot pads. The foot glands are used to mark trails; the anal gland gives off an odor when the fox is alarmed and a gland on the rump is used to mark scent posts.

POPULATION

Fox populations are most abundant in the fall when the young are dispersing and there seems to be a cycle rise and fall in the population every three or four years. Trapping, road accidents and rabies are major causes of mortality.

HABITAT

The fox has adapted well to the agricultural areas of Alberta. The mixture of open fields, thickets, fence lines, hedgerows, ditches and hilly areas are to its liking and offer good shelter and feeding opportunities. The fox is also found throughout the boreal forest area of Alberta as well as in open grassland areas. Foxes den in thickly sheltered areas, often taking over ground hog or skunk burrows. The burrows generally have more than one entrance with about a 10 inch opening and may be 25 feet in length. They never den near coyotes.

ECONOMIC VALUE

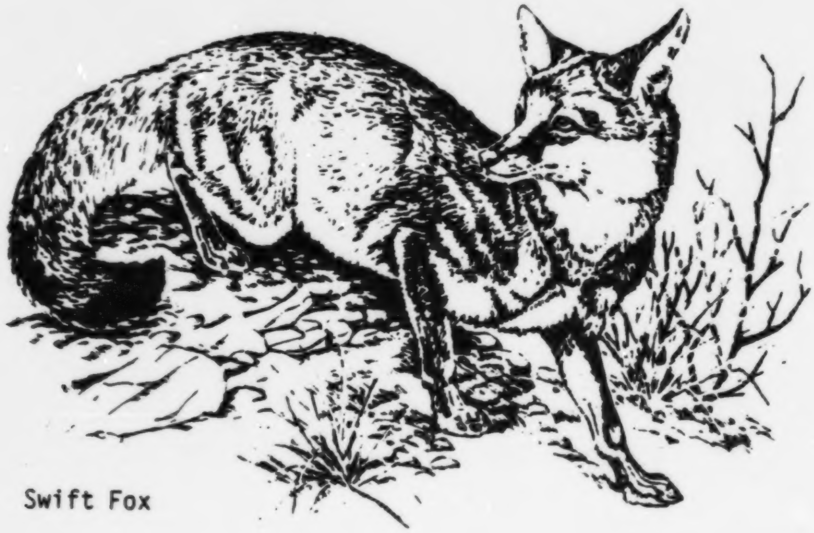
Fox have long, silky fur, which is light but not very durable. It is used extensively for garments and stoles. Foxes make up about 2 - 4% of the annual fur take in Alberta.

Foxes are also valuable in helping to control rodent populations. Their value in this regard far outweighs the occasional chicken they may kill.

DISTRIBUTION AND STATUS

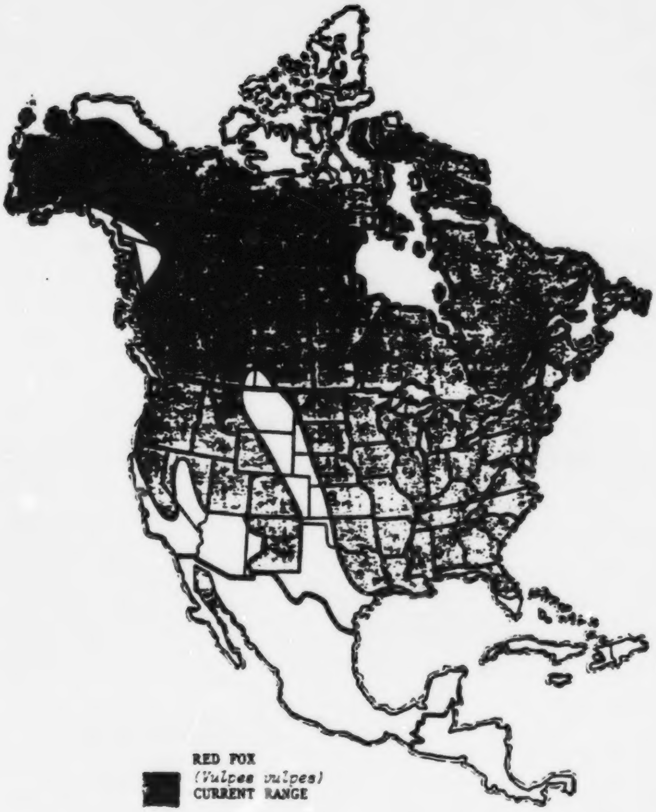
Foxes are found throughout Canada, south of the Arctic and much of the United States. In Alberta, they occur all over the province, but are scarce in most areas except for the east central region. Prior to the 1950's, the fox was much more abundant in Alberta than now, but during the '50's, a rabies outbreak, followed by mass control campaigns decimated the population. Since then, coyotes have extended their range and become abundant and seem to have largely displaced the fox in many areas.

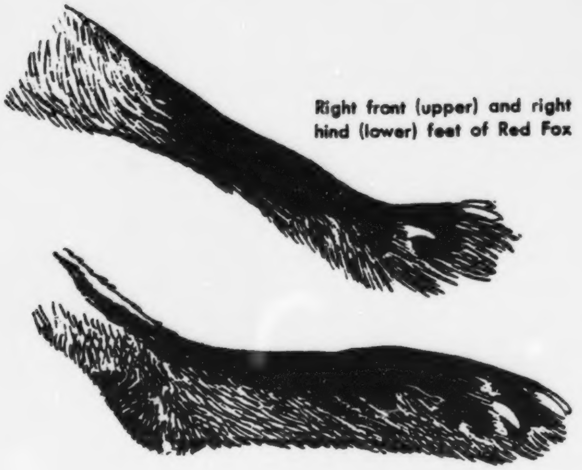
The swift fox has been reintroduced to the south east corner of Alberta and cannot be trapped or hunted.

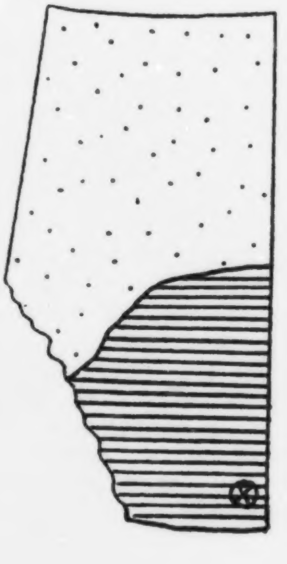


Swift Fox

FOX - RANGE, TRACKS, DROPPINGS


RED FOX
(Vulpes vulpes)
CURRENT RANGE

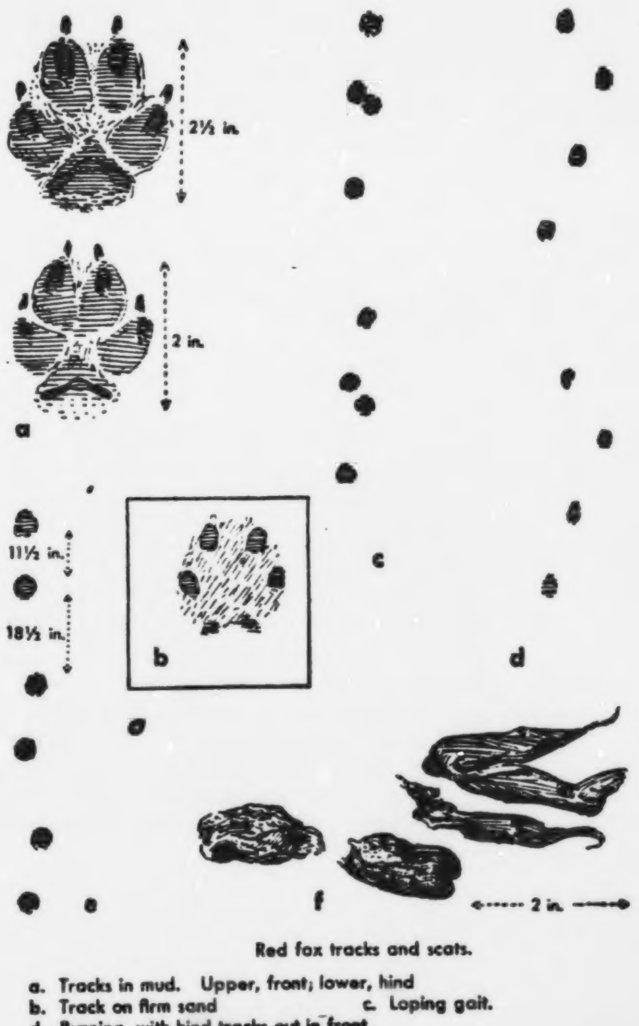

Right front (upper) and right hind (lower) feet of Red Fox


Ⓧ Swift Fox

RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

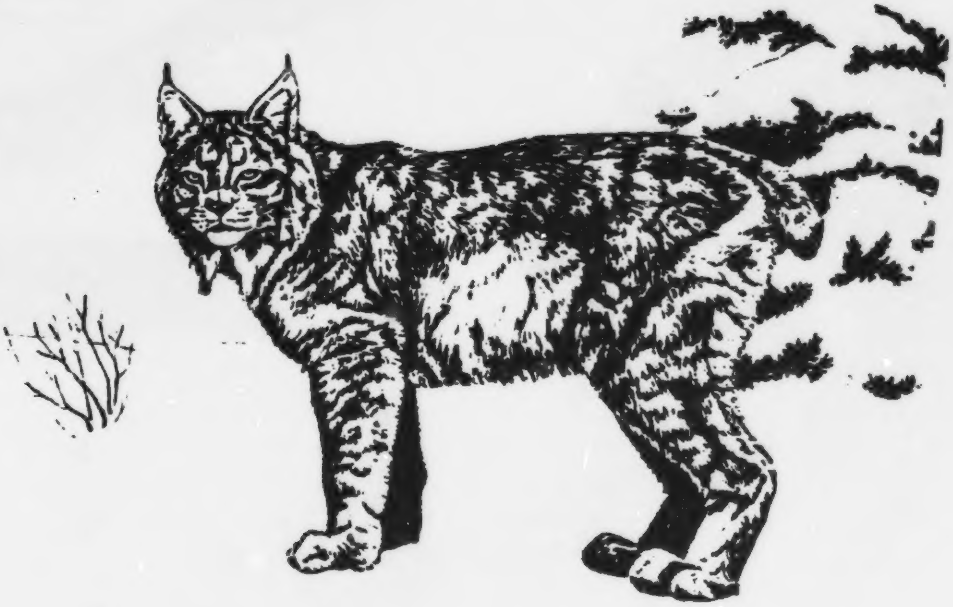
▤ Common ▨ Occasional ☐ Rare - Most of area non-existant


2½ in.
2 in.
a
11½ in.
18½ in.
b
c
d
e
f
2 in.

Red fox tracks and scats.

a. Tracks in mud. Upper, front; lower, hind
b. Track on firm sand
c. Loping gait.
d. Running, with hind tracks out in front.
e. Walking gait.
f. Scats.

Biology of The Lynx



NAME AND HISTORY

The scientific name of the Lynx is (Lynx canadensis), with part of the word Lynx in latin, meaning glarer or one who sees well in dim light. The second part of the name, canadensis, is for Canada.

CHARACTERISTICS

The lynx belongs to the cat family Felidae, and is therefor equipped with long, sharp, retractable claws. It has long, powerful legs and large feet copmletely covered with dense fur in the winter months. The rear legs are 3 to 4 inches longer than the front legs, giving the appearance of the body being sloped downward toward the front. Some of the more distinguishing features are the rather large, erect ears, with stiff, black tufts of hair protruding from them that act like an antenna to aid hearing. There is a muttonchop type of "ruff" extending downard from below its ears to below its chin where it forms a point about 3 1/4 - 4 inches below each side of the mouth. The ruff is pale colored, terminating in a black tip.

The eyes are large and bright yellow in the daylight and are placed on the front of the head like binoculars. Lynx have excellent eyesight and exceptionally good hearing, both of which make it a good hunter. There are reports of lynx spotting a mouse at 250 feet and a hare at over 1/5 of a mile.

The lynx moults twice a year - in the spring and in the fall. The winter fur is long, silky and fluffy with silver color showing above the light tan underfur. There are darker spots and markings on the belly and a solid black tip on its short 5" tail.

The males are larger than females when full grown and usually stand 19 - 24 inches at the shoulder and measure 36 - 40 inches long. Average weight is 15 - 30 pounds with specimens up to over 40 pounds.

When travelling, its head is held low, giving it the appearance of constantly stalking its prey.

REPRODUCTION

Males may breed at one year of age. Females may start to breed at one year, but during times of low rabbit populations, they may not breed until 2 or 3 years old. Breeding season is January to March, with a gestation period of about 63 days, when 2 or 3 kittens are born. Sometimes there may be as many as 4 or 5 kittens, but this is unusual. The den is usually under the roots of an overturned tree or in a heavy thicket of brush. The male does not help provide food so the mother must hunt and return quickly, to prevent any male that happens along from killing the young. Cannibalism is common among lynx, especially during times of low snowshoe rabbit populations.

The eyes of the kittens are closed when born, but open in 9 - 12 days. The eyes are blue colored until about 2 months old, when they begin to change to yellow. The young start to feed on meat at 5 - 6 weeks of age and at the age of 3 months, the kittens are weaned. By this time, they have started to hunt with their mother. They usually stay with her until the next breeding season. Their life span may go to 12 - 15 years, but in the wild, it is unlikely that many reach this age.

FOOD

Eighty to ninety percent of the food is snowshoe hare when the hare population is high. They do not eat the feet or stomach. When the rabbit cycle is low, voles, mice, lemmings, squirrel, grouse, eggs and carrion are eaten along with beaver, muskrat, deer and moose calves. Unlike most predators who feed on a number of species of prey, the lynx seems tied to the snowshoe hare and, as the snowshoe hare population fluctuates, so does the lynx population fluctuate. These high and low populations are usually in the years ending in 7, 8 or 9. A shortage of food is believed to cause lynx to migrate from the North as far south as into the Northern United States.

HABITS

Lynx feed primarily at night because that is the time snowshoe hare are on the move. During times of high snowshoe hare populations, the lynx may move about very little and may not cover more than one square mile. They may hunt cooperatively in twos and records show that groups of 4 hunt together in a line a short distance apart. As a hare is flushed from its hiding place, its habit is to circle and one of the lynx will catch it. When the lynx is angry, its ears are flattened on its head and the short tail is lashed back and forth angrily. It often sits still for hours in wait for prey. During a storm, it may curl up under a thick spruce and just conserve energy; it may stay this way for several days. The lynx is usually not vocal except shortly before and during breeding season when loud vocalizations occur.

Lynx do not adapt well to man and prefer to live well removed from human activity as long as there is food.

POPULATION

The lynx is tied to the snowshoe hare population and, as a result, there are wide fluctuations in population at every 10 year period. Wolves and wolverine are the most common natural enemies, with some predation by bears, particularly on the young. Lynx also catch mange, distemper and rabies, as well as internal parasites such as round worms and tapeworms. Lack of snowshoe hare for food seems to be the big stumbling block to a stable population. Careful management would appear very necessary to assure the continued well being of the lynx in Alberta and to avoid the dangerous low population from 1920 - 1950.

HABITAT

Lynx prefer the boreal forest regions of Alberta and is found in roughly the same regions as the snowshoe hare. They like areas of fallen timber, mixed with thick, new regrowth. Banks of streams with willows, along with rolling terrain are favorite spots.

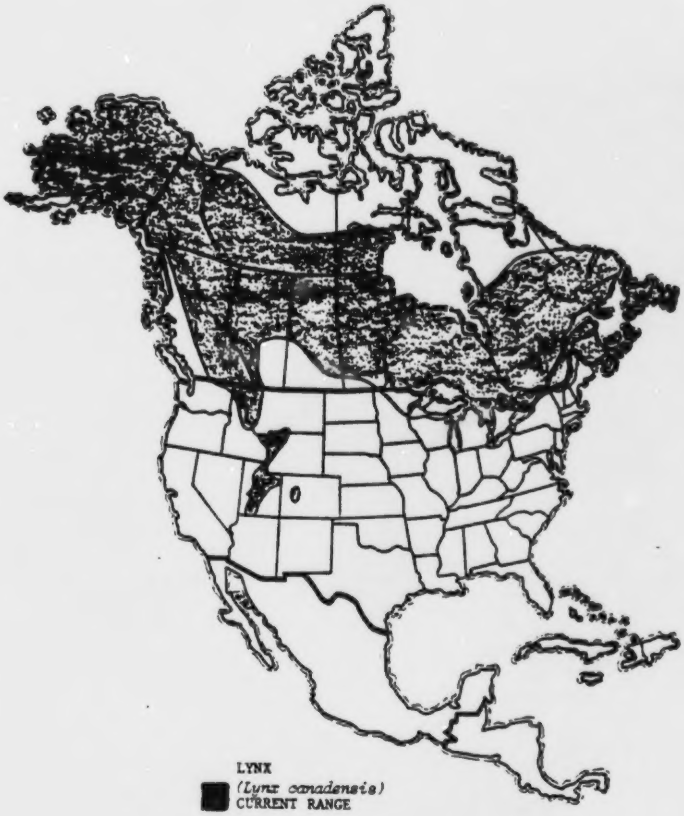
ECONOMIC VALUE

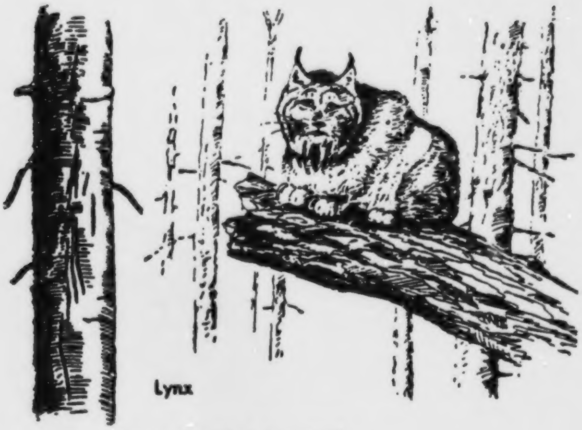
Lynx have a highly prized and fine valuable fur used for good quality garments. The meat is fine, delicate and good - a valuable food supplement for many people in those areas where it is harvested. Lynx fur accounted for 7% - 32% of the total fur value in Alberta over the past 10 years. In 1982 - 1983, lynx fur was the single most valuable fur in Alberta, accounting for over 2.3 million dollars. Lynx may also assist in controlling the hare population in newly reforested areas.

DISTRIBUTION AND STATUS

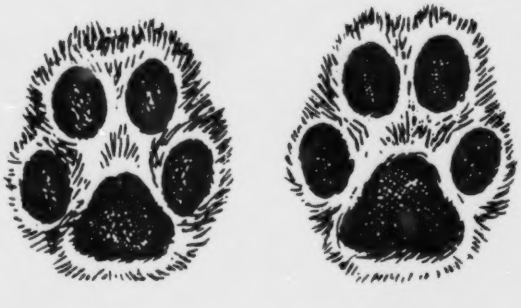
Found mostly in northern and western forested regions of Alberta, the lynx seems to have reached its population peak in 1978-1979 and has since declined seriously. A concerted effort by trappers would seem to be in order, with little or no harvest for several years to allow the population to replenish itself as the snowshoe hare population builds.

LYNX - RANGE, TRACKS DROPPINGS

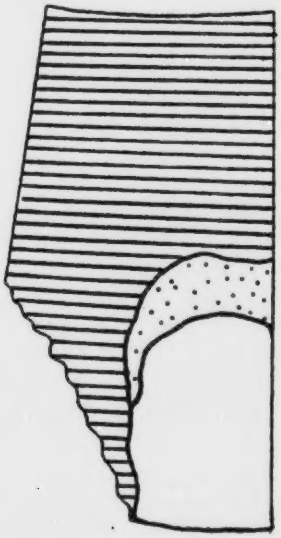

LYNX
(Lynx canadensis)
CURRENT RANGE



claw marks on a tree trunk, where animal had been scratching



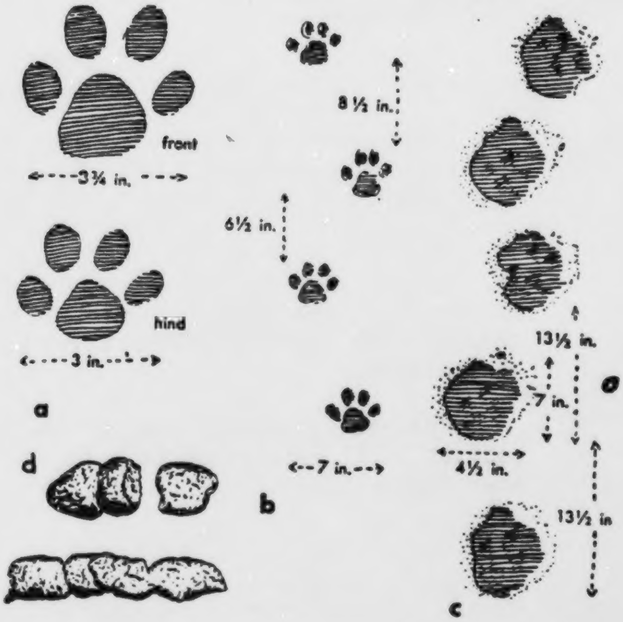
FRONT **REAR**



RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

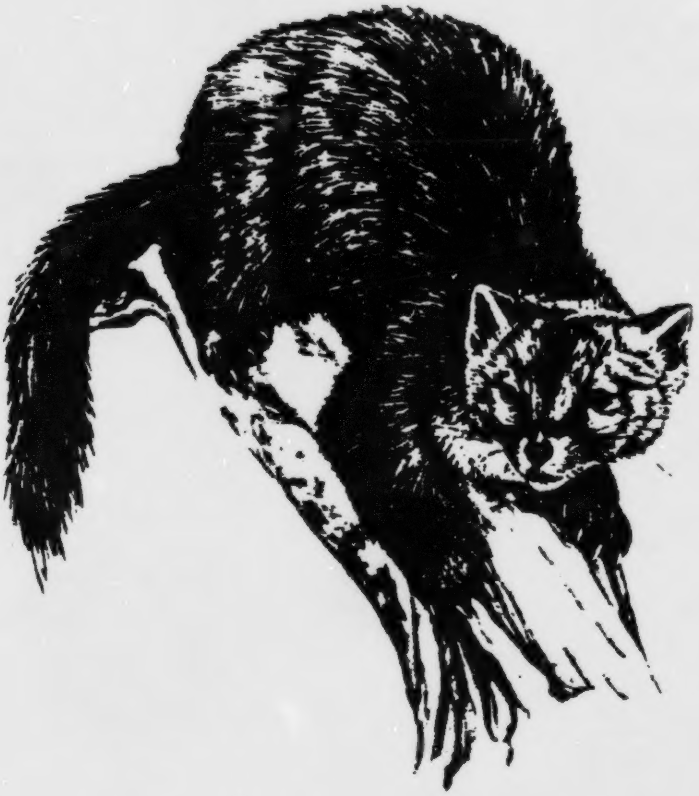
▤ Common ░ Occasional ☐ Rare - Most of area non-existant


front
3¾ in.
hind
3 in.
a
8½ in.
6½ in.
7 in.
b
13½ in.
7 in.
4½ in.
a
13½ in
c
d

Lynx tracks.

a. On hard snow.
b. In snow, showing toes; the lynx sank 2 to 3 in. into the snow.
c. In deep snow, toes indistinct. d. Scats

Biology of The Marten



NAME AND HISTORY

The marten's scientific name is (Martes americana). It is a member of the weasel family (ie: the Mustelidae).

The marten is closely related to the sable of Asia and Northern Europe. The sable has a darker pelt than most North American marten and commands a high price.

Most of the marten harvested in North America are taken in Canada. Marten have been intensively trapped throughout their range in North America. During the last century, marten populations declined due to uncontrolled trapping and habitat destruction from fires, logging or clearing of land for agriculture.

Presently, marten appear to be recovering in many areas where good habitat still exists and harvest figures are higher than ever before in North America.

CHARACTERISTICS

The marten has the typical long slender body of the weasel family. The head is small with large, rounded ears, dark brown eyes and a short tapering muzzle.

The marten lacks centre pads on its feet and has semi-retractable claws; the legs are comparitively short. The tail is well furred and about half the body length.

Males are larger than females and average 25 - 30 inches in length, including the 7 - 10 inch tail and weigh 1 1/2 to 2 pounds. Females average 18 - 20 inches, including the tail and weigh 1 - 1 1/2 pounds.

Colour variations may range from yellow to nearly black, but the most common is a golden brown. The head is usually lighter and the legs darker. The outer edges of the ears are trimmed with white. Yellowish or orange patches occur on the throat and chest. The fur has a rich, soft texture when prime, the summer coat is lighter, coarser, and lacks the thick under fur.

All marten have two types of scent glands, one under the tail and the other under the skin of the belly. These glands are probably used to mark territories or attract mates during the breeding season.

REPRODUCTION AND NATURAL HISTORY

Both sexes are sexually mature at one year of age. The breeding season occurs in July and August; they often mate with more than one partner in one season. During most of the year, they lead solitary lives, except when rearing young or during the mating season.

There is a gestation period of from 220 to 276 days, following fertilization - this is known as "delayed implantation-active pregnancy occurs only during the last 27 days. There may be one to five young, but the average litter is three kits which are born in March or April. The young are covered with fine, downy, yellow hair and are blind until 4 - 6 weeks of age; they are weaned shortly after this.

Marten usually live to around six years of age, but occasional instances of individuas living to 19 years have been recorded. Young marten can be recognized by the differences in their skull features.

FOOD

Marten prey on small mammals such as squirrels, chipmunks, hares and mice, especially the red backed vole and field mice. They may also eat birds or their eggs, insects, carrion and even berries.

HABITS

In good habitat, males have a home range of about 1 square mile and females 1/3 of a square mile. Immature marten have no terrritory of their own but establish these by the time they reach adulthood. Ranges are marked by scent glands. Females establish a permanent den to rear the young in, but during the rest of the year, both sexes keep on the move.

Marten are curious and have very keen senses. As a result, they are readily attracted to bait ad are easily trapped.

Marten may den up in extreme weather, but normally are active, especially at night although females are often active during daylight hours as well.

POPULATION CHANGES

Trapping can have a strong effect on Marten populations. Males travel more and are more likely to encounter traps, and as a result, two or three times as many males are taken as females. Nevertheless, the sex ratio within the population remains balanced which indicates that females must have a high natural mortality rate.

Where conditions are suitable, there is generally one marten per 1 1/2 square miles. The numbers of marten in a general locality is never constant because of the tendency, especially of the young, to keep moving around. Populations may increase to two or three times their normal size due to the presence of juveniles that are passing through the area in search of territories of their own. This most commonly occurs in late summer when the young are leaving the den.

The young are very easily trapped. This probably results from their inexperience and to their habit of travelling widely in search of territories. If trapping activities are concentrated in the early part of the season (ie: October, November), the harvest will consist in large part of the young of the year. This is preferable as it conserves the valuable adult breeding stock which will bear young in the following spring; also, it is harvesting of the surplus, as most of the young will not survive the winter as they are much more susceptible to natural mortality factors than adults who have established territories. Also, the removal of these surplus animals makes more food and space available to the remaining population, thus improving their survival and encouraging higher reproduction rates.

HABITAT

Marten prefer mature coniferous forests and seem to avoid extensively burned over or logged areas. They often frequent open, grassy areas along streams or other water bodies or small forest openings, probably in search of mice or other small rodents.

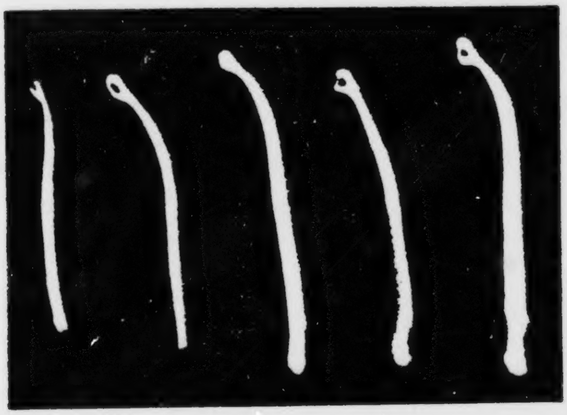
They generally den in abandoned squirrel nests, hollow trees, in old stumps or rock crevices.

ECONOMIC VALUE

The fur of marten is highly rated for beauty and quality and the pelt is very light. It is extensively used for making garments. In Alberta, it accounts for about 1 - 2% of the total fur value.

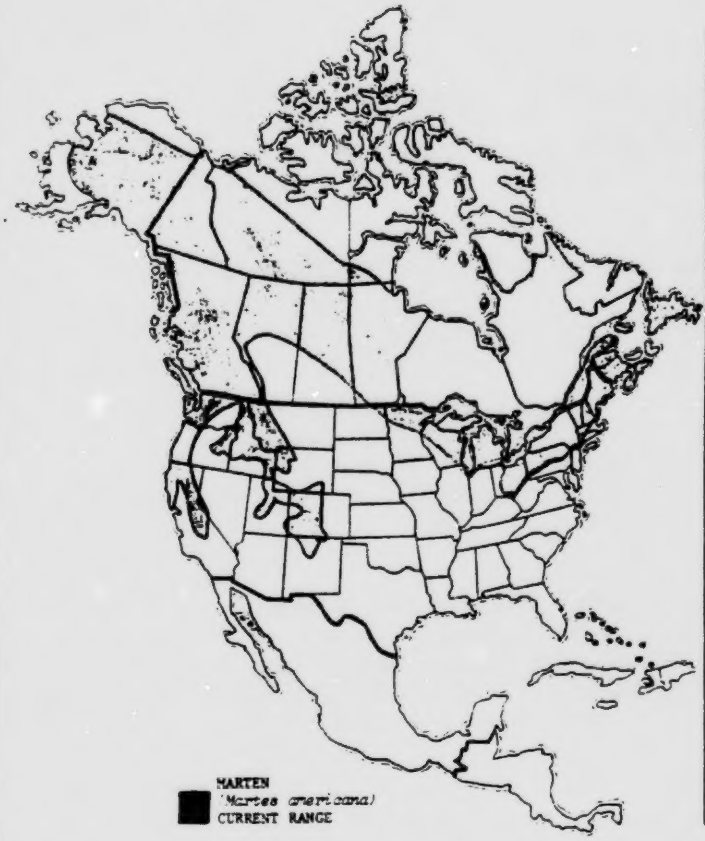
DISTRIBUTION AND STATUS

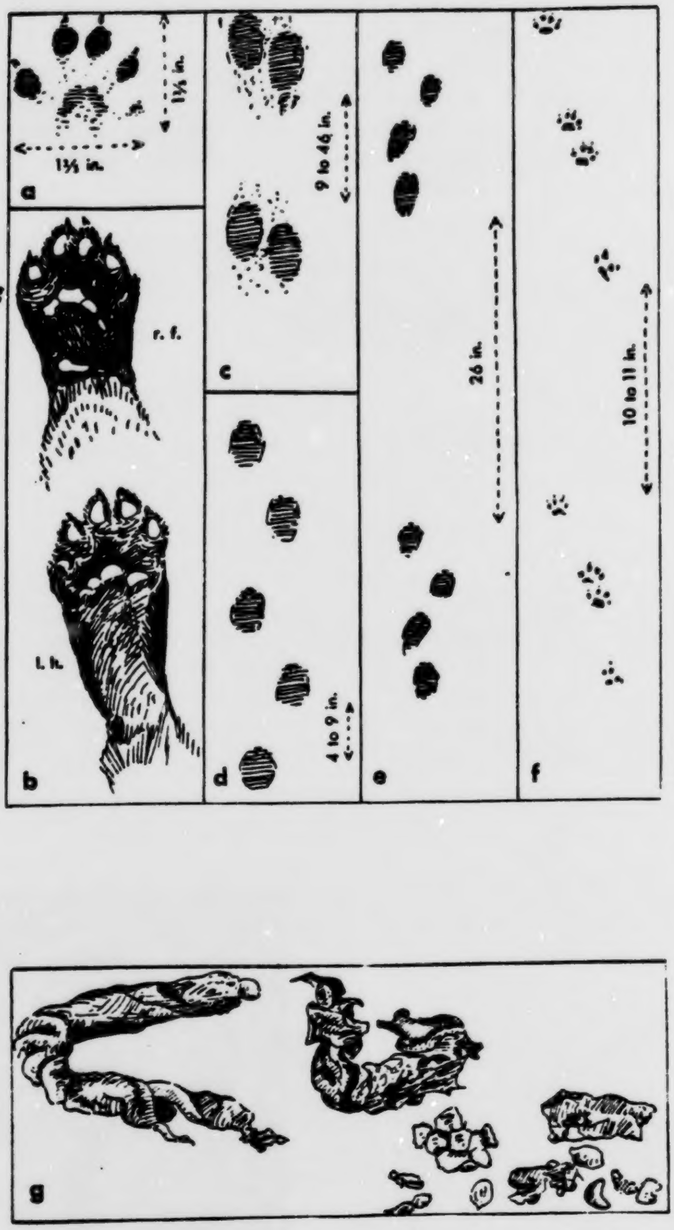
Marten are found throughout the northern and western forested regions of Alberta. They also occur in most forested areas of Canada, except in Prince Edward Island, and some areas of the United States also have marten. The status of marten in Alberta varies from adequate to plentiful in some areas to scarce in others.



Bacula of known-age pine marten arranged with proximal end to bottom. Ages from left to right: 5 months, 9 months, 3 years, 8 years, and 14 years.[2]

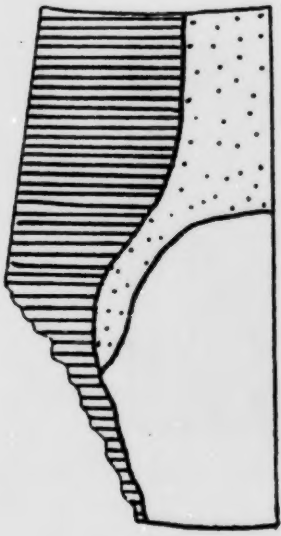
MARTEN - RANGE, TRACKS, DROPPINGS


■ MARTEN
(Martes americana)
CURRENT RANGE


1⅓ in.
1⅓ in.
a
r. f.
l. h.
b
9 to 46 in.
c
4 to 9 in.
d
26 in.
e
10 to 11 in.
f
g

Marten.

a. Print on hard snow.
b. Feet in summer In winter thick hair on the soles conceals the toe pads, though they begin to show again in late winter.
c. A common form of track when marten is running easily, hind feet registering in the front tracks.
d. Walking tracks. e. A running gait seen on harder snow.
f. Tracks on crust, toes showing. The rear track reveals an injured foot
g. Three samples of scats, about ⅔ natural size.

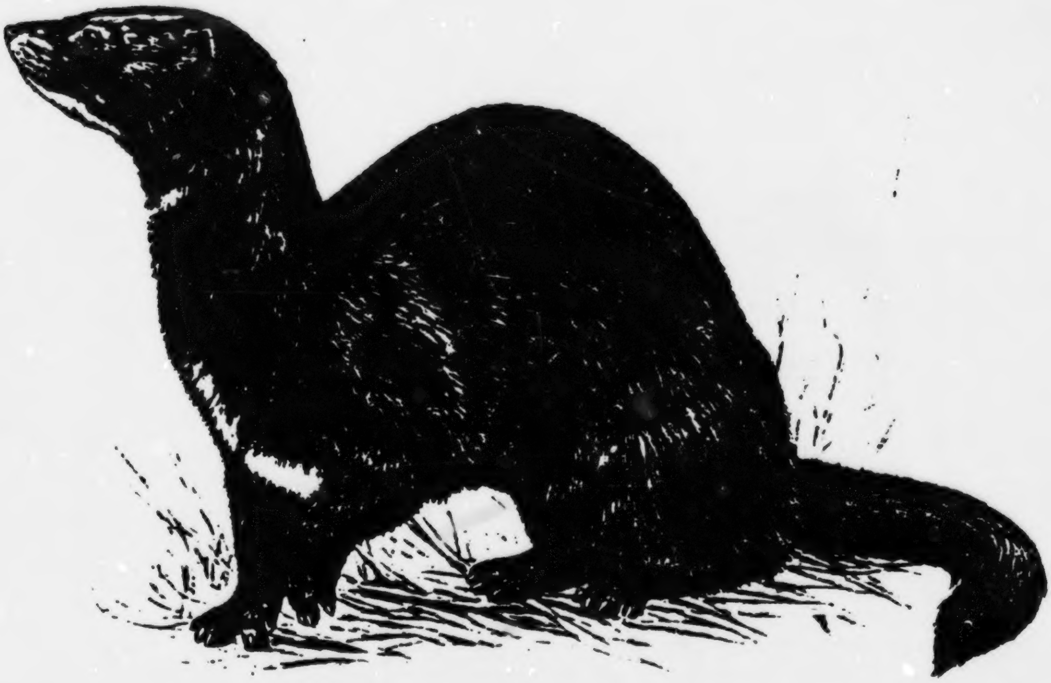


RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ⁙ Occasional ☐ Rare - Most of area non-existant

Biology of The Mink



NAME

The scientific name for the mink is (Mustela vison). The mink belongs to the weasel family or (Mustelidae).

CHARACTERISTICS

The mink has a long, slender body with short legs and a well furred tail. It varies from 18 - 36 inches in length, including an 8 inch tail. They usually stand 3 1/2 to 5 inches at the shoulder and weigh 1 1/4 - 3 3/4 pounds. The males are notably larger than the females. Although tame mink have been bred in a wide variety of colours, wild mink are usually dark brown with a white spot under the chin. The head is small and sharply pointed with small ears.

The mink is a semi-aquatic mammal with a dense, oily underfur which protects it from wetting. There are stiff hairs between the hind toes which act as an aid in swimming. Mink, like other Mustelidae, also possess musk glands which can give off a powerful odor. These may be used to mark territories, attract a mate or for defensive purposes. Mink have keen sight, smell and hearing.

Although mink moult twice a year, they do not change colour from winter to summer as weasels do. The spring moult begins in March-April and it is finished in mid July. In the fall, the moult starts in mid August and is completed by October. When prime, the skin is creamy white and the underfur is bluish in colour. The guard hairs have a tendency to singe or curl, especially in mid to late winter.

REPRODUCTION AND NATURAL HISTORY

Both sexes are capable of mating at around 10 months of age. The breeding season occurs in late February to early April, generally persisting for a three week period. Like many other members of the weasel tribe, the mink exhibits the phenomenon of delayed implantation but it is not nearly as long as that found in fisher or marten. Gestation lasts from 40 - 75 days, averaging 51 days. The litter size varies from 2 - 10 young with the average being four. The young are weaned at 5 - 6 weeks of age. There is a high mortality rate for the young during their first year, but if they survive to adulthood, they may reach 6 years of age.

The young are born in April or May in dens lined with leaves or grass and they are naked except for a covering of fine white hair. Their eyes open after 25 days and they are able to hunt by eight weeks of age. Growth is rapid with females reaching adult weight at four months and males by seven to ten months. The young stay within the home range until late August and then disperse.

The age of males can be estimated by the size and weight of the penis bone. The penis scar can be readily seen on a cased pelt of the male. Young and adult females can be distinguished from each other by the appearence of the teats which are much larger and darker in adults than in the young.

HABITS

Mink are usually solitary in habits except during the breeding season or when rearing young. They are most active in the early morning or evening. Being a semi-aquatic animal, they frequent lake shores and stream banks and are excellent swimmers and will dive and swim underwater. They are capable of climbing trees but don't do so very often. Mink are curious and persistent hunters, tirelessly investigating every hole they come across in search of prey.

They are active the year round although they may den up in inclement weather. Males use a number of dens; females have fewer but frequently change dens when rearing the young.

Females have a home range of about 1 square mile, males, 2 - 3 square miles. The young travel more and may cover from 2 - 28 miles in search of a home range. Territories are marked with scent in prominent places. A mink normally ranges only about a 1000 foot radius from his current denning place, gradually rotating around his home range.

FOOD

Mink will eat a wide variety of food. Being a carnivore, it primarily eats animal matter and will kill almost anything it is capable of overpowering. Muskrats, mice, fish, frogs, rabbits, crayfish, birds (including waterfoul) and their eggs. Even insects are included in their diet.

Although mink prey heavily on muskrat at certain times, there is no danger of them being detrimental to muskrat populations as they only take the surplus animals when muskrat are over abundant and these animals would die of other causes anyway. Mink often cache extra food and kill their prey by piercing the base of the skull with their teeth. They hunt by exploring every hole or crevase which occurs along their line of travel.

POPULATION CHANGES

Where good habitat exists, anywhere from 2 - 5 mink may live within one square mile. Since mink are so dependent upon shore line habitats, flooding, drought or cottage developments along lake shores may adversly affect their populations.

In areas where mink are feeding almost exclusively on a single prey species, their populations may follow the cycles of the prey animals. In areas where they have a diverse diet, the population is usually quite stable.

Mink are susceptible to several diseases and parasites such as tularemia, kidney worm, guinea worm, tapeworm, lice, ticks, fleas, etc. Under normal conditions, these do not adversly affect mink populations, but may do so when conditions become unfavorable or when populations are overabundent.

HABITAT

Mink avoid open areas and prefer the edges of water bodies such as lakes, streams or ponds. Forested areas with fallen timber, irrigation and drainage ditches with brush or other vegetation along the banks are also frequented. Marshlands are also good habitat, especially if they support muskrat populations and fish.

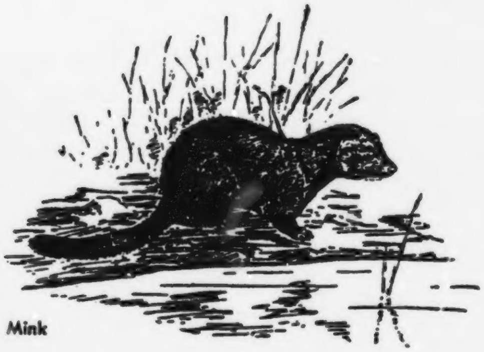
Burrows and dens are usually located near water bodies, especially under coniferous cover. Dens of other animals may be used or improved. Burrows are often 8 - 10 feet long.

ECONOMIC VALUE AND STATUS

Mink are a very valuable fur bearer, having short, fine, durable fur and are used extensively in the making of women's coats. Mink can be successfully ranch raised and, in fact, the bulk of the mink on the world market are ranch mink, but wild mink are in high demand. In terms of Alberta's wild fur production, wild mink account for about 3 - 5% of the annual revenue.

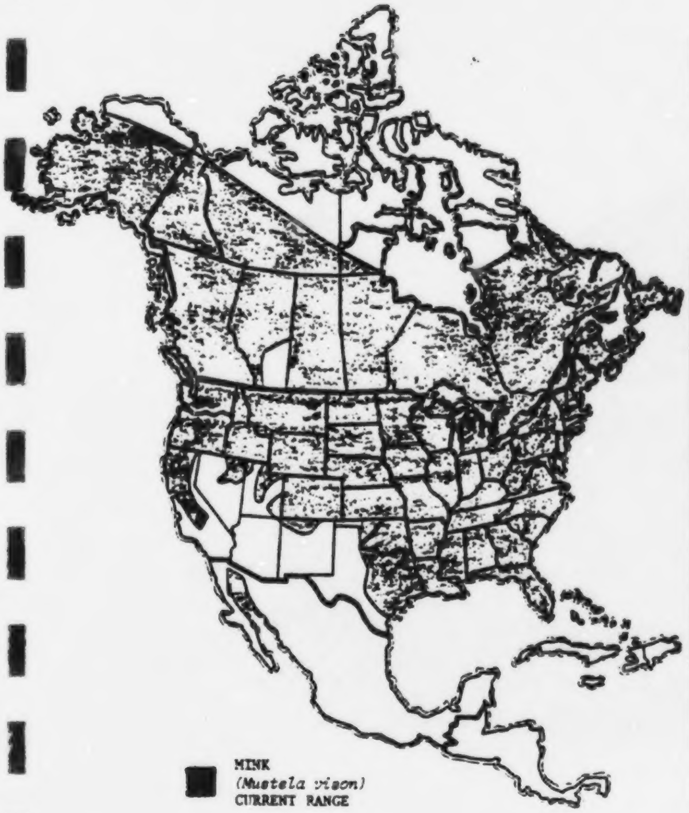
DISTRIBUTION AND STATUS

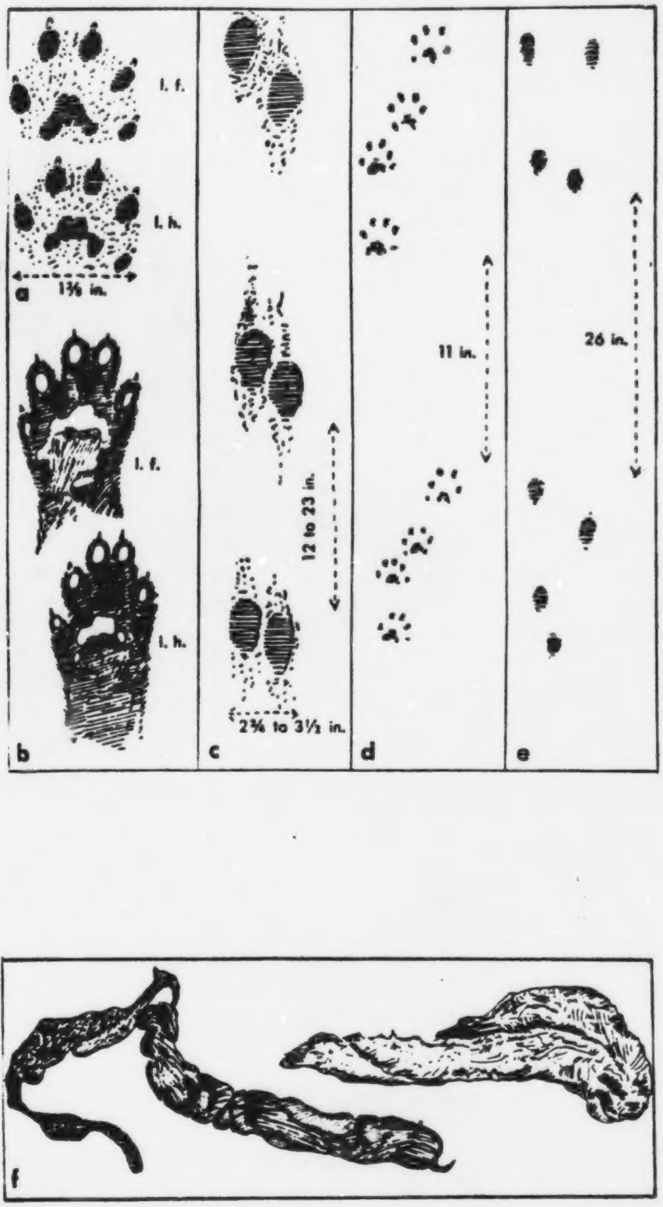
Mink are widely distributed throughout the province of Alberta. Populations are abundant to adequate in most areas. They are scarce in the south east corner of the province.



Mink

MINK - RANGE, TRACKS, DROPPINGS


MINK
(Mustela vison)
CURRENT RANGE


l. f.
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a
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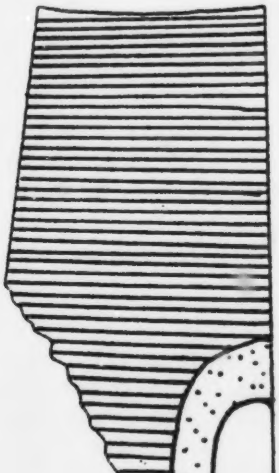
b
12 to 23 in.
2¾ to 3½ in.
c
11 in.
d
26 in.
e
f

Mink.

- a. Typical mink tracks in mud.
- b. Mink feet.
- c. The common mink trail, twin prints made by the hind feet registering in the front tracks, or nearly so.
- d and e. Running track patterns.
- f. Mink scats, about ⅔ natural size.

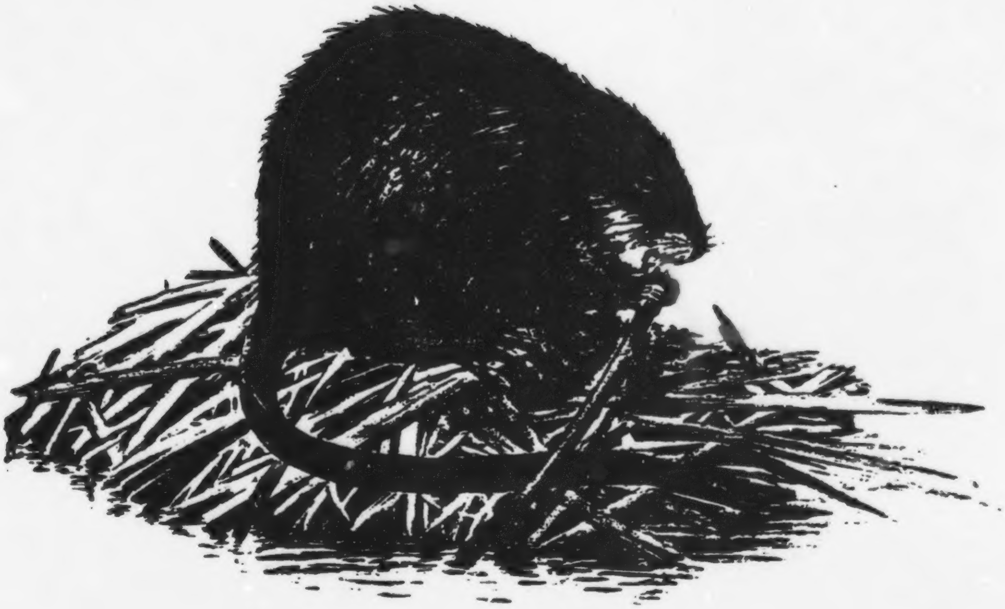


RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ⁙ Occasional ☐ Rare - Most of area non-existant

Biology of The Muskrat



NAME

The scientific name for the muskrat is (Ondatra zibethicus). The muskrat is a member of the rodent family. Its name is derived from the musky odor produced by the scent glands of the male muskrat.

CHARACTERISTICS

The muskrat looks like a large field mouse that has become adapted to an aquatic existence. They are generally 16 - 25 inches in length, including an 8 - 11 inch tail and stand about 3 1/2 to 5 inches high and weigh 2 - 4 pounds. The front legs are short, with almost hand-like front paws. The larger hind feed have special stiff hairs or fringes to aide in swimming. The tail is long, hairless and is flattened vertically, acting like a rudder when swimming. The scaly surface of the tail may serve to regulate body temperature. The body is round and chunky with a small head and ears. The mouth contains two pairs of large, sharp incisor teeth, which, like most rodents, grow constantly but are kept sharp and worn down by continuous chewing of vegetation. The colour is usually dark brown on the upper body and pale brown to almost yellow or silver on the stomach. The colour may range from pale brown to almost black in some localities. The muskrat is well adapted for aquatic life and has special valve-like flaps which can close off the nostrils, ears and mouth for underwater feeding or travel. It can also restrict blood flow to essential organs in order to conserve oxygen and can thus stay underwater for up to 17 minutes.

REPRODUCTION AND NATURAL HISTORY

Like most rodents, muskrats have a very high reproductive potential. Young are sexually mature within one year and under favorable conditions, this may be reduced to five months. The breeding season begins at ice breakup and muskrats are quite vicious at this time. Fights are common and pelts taken at this time often show bite marks.

One female can produce up to 4 litters per year when conditions are good; most produce at least 2 - 3 litters in a season as the gestation period is only 30 days. Litter size ranges from 2 - 11, with 6 being the average, so that one female can have approximately 18 - 20 young each year. The young are reared in the lodge and houses containing litters can be recognized by the fresh material added to them in the spring. These muskrats should not be trapped in order to protect the breeding stock and the young being reared.

The young are born helpless, blind and naked, but grow quickly and are able to leave the lodge in 2 - 3 weeks. Weaning occurs at the end of one month and the young are able to fend for themselves within 6 weeks. The young disperse the following spring to find territories of their own. Muskrats can live up to 4 years, but records show that 87% die of natural causes during their first year. Only about 11% live to the age of 2 years, and 2% to the age of 3 years or more. The young may be distinguished from adults by their pelt patterns in late fall or early winter.

FOOD

Muskrats are primarily vegetarian in food habits but will eat some animal matter such as cray fish and frogs. They prefer the innerparts of the stocks and roots of cattails and bullrushes. They will also eat submerged pond weeds and grasses, sweet flag, lily pad bulbs and roots, wild rice, etc.

Muskrats create what is known as pushups in the winter by forcing vegetation up through the ice, creating a protective platform to feed on. During the open water season, they have favorite feeding locations which they use repeatedly and which eventually become built up with vegetation, forming a feeding platform.

HABITS

Muskrats live alone or in pairs except during the winter when they group together for warmth, but because of their agressive nature, it is not uncommon for some to be forced out of the lodge, onto the surface of the ice. These individuals are doomed to die from exposure or from predators. Muskrats are most active during the spring breeding season and are particularly wary and agressive at this time and will climb onto any floating object to investigate. They will not hesitate to attack predators or people if cornered and fights between muskrats can be fatal. Females with litters are very teritorial.

Mukrats are most active during the evening hours but can be seen swimming at any hour of the night or day. They remain active all year round.

There are two musk glands near the anus which produce an oily musk used to mark territories, and these glands enlarge during the breeding season.

Along creeks, home ranges extend along the stream in both directions from the burrow; in marshy areas, the home range is a circular radius surrounding the lodge. When travelling, muskrats use the same runs over and over again.

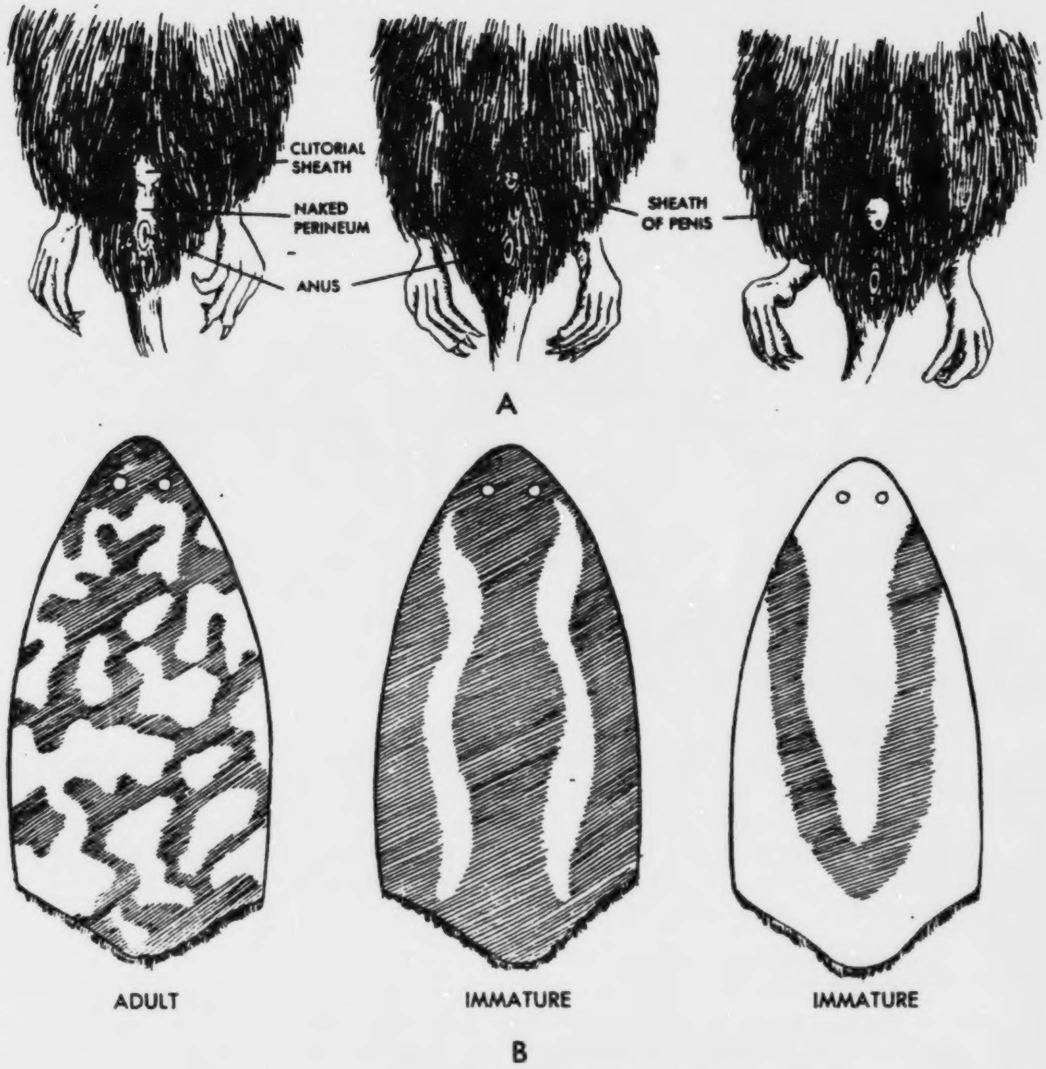
POPULATION CHANGES

To thrive, muskrat populations must have stable water levels which are deep enough not to freeze to the bottom in the winter, but not so deep that the water won't support emergent aquatic vegetation.

Muskrat populations rise and fall in fairly regular cycles of from 7 - 10 years. Diseases such as tularemia or hemorrhagic disease can quickly decimate over populated areas. White spots on the liver may indicate tularemia and blood in the intestine or lungs is a sign of hemorrhagic disease. Muskrats have many other parasites, but most seldom result in death.

Muskrats are preyed upon by owls, hawks, mink, fox, coyote, raccoon, and bobcats and often kill each other.

SEX, AGE AND HIDE PRIMENESS IN MUSKRATS


CLITORIAL SHEATH
NAKED PERINEUM
ANUS
SHEATH OF PENIS
A
ADULT
IMMATURE
IMMATURE
B

Sex and age criteria as shown in genitalia and hide primeness in muskrats. *(A)* Genitalia: *Left*—immature female with naked perineum; *Center*—immature male, note size difference of penis sheath; *Right*—adult male. *(B)* Pelt primeness; *Left*—adult with irregular mottled dark-colored areas; *Center-Right*—immatures showing classes of patterns. White areas denote primed sections of hide; shaded areas are unprime

HABITAT

Muskrats prefer marshes, slow moving streams, drainage ditches, ponds or sloughs with soft banks to permit burrowing and which support abundant growths of cattails, bullrushes and other aquatic vegetation. They require stable water conditions of at least 2 - 3 feet in depth.

Muskrats build two types of lodges (ie: a dwelling lodge and a feeding house); both are made from non-woody vegetation. The dwelling house is larger with several chambers and is usually consructed in the fall. The feed houses only have one compartment.

Rats also make pushups in the winter by forcing mud and vegetation from the bottom up through cracks in the ice. These are used as feeding stations or as locations to come up for air. Where there is suitable soft earth along stream banks or lake shores, muskrats will generall dig burrows. These may be as long as 150 feet in length and may have more than one branch. The entrances are always below the water line and lead to one or more chambers above water level. The chambers are lined with vegetation. In some areas, muskrats use both lodges and burrows and in other locations, only one or the other, depending on the availability of vegetation and soil conditions.

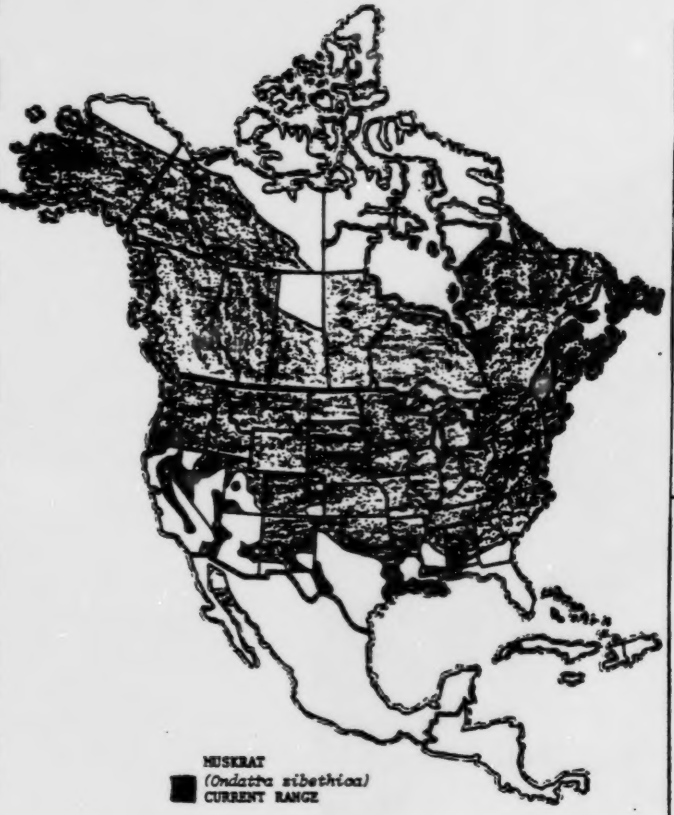
ECONOMIC VALUE

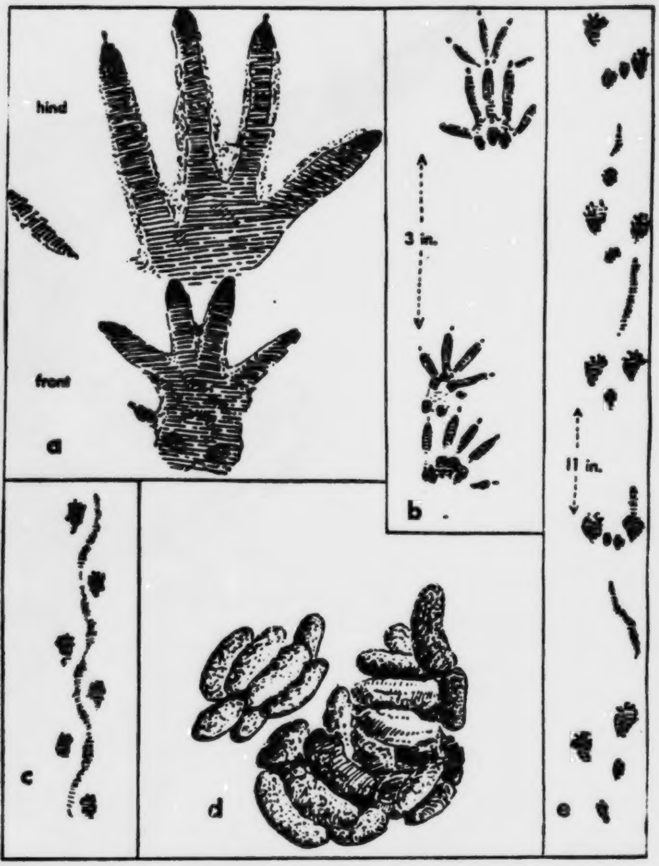
Muskrats have a fine quality fur much used for coats, hats and trim. It has ocasionally been the single most valuable furbearer in Alberta, generally comprising from 11 - 26% of the total fur production value. Muskrats can be a nuisance at times around ditches and dykes because of their burrowing habits. Muskrats head the list in terms of numbers taken and income generated for trappers in North America as a whole.

DISTRIBUTION AND STATUS

Muskrats are found all over Alberta, but are rare in the dry south east. They are adequate to abundant in most areas. Their populations fluctuate in cycles and are also greatly affected by habitat destruction due to the drainage and damming activities of man. It is the most common and widely distributed furbearer in North America, and has become common in Europe and Asia where they were introduced around the turn of the century.

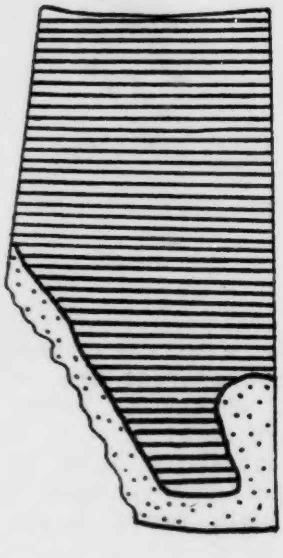
MUSKRAT - RANGE, TRACKS, DROPPINGS





Muskrat tracks and scats.

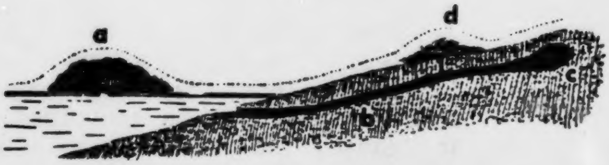
- a. Tracks, right side, in mud, natural size.
- b. Walking tracks in mud.
- c. Track diagram, showing tail mark in snow.
- d. Droppings, about natural size.
- e. Tracks in light snow on ice, running gait.



RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

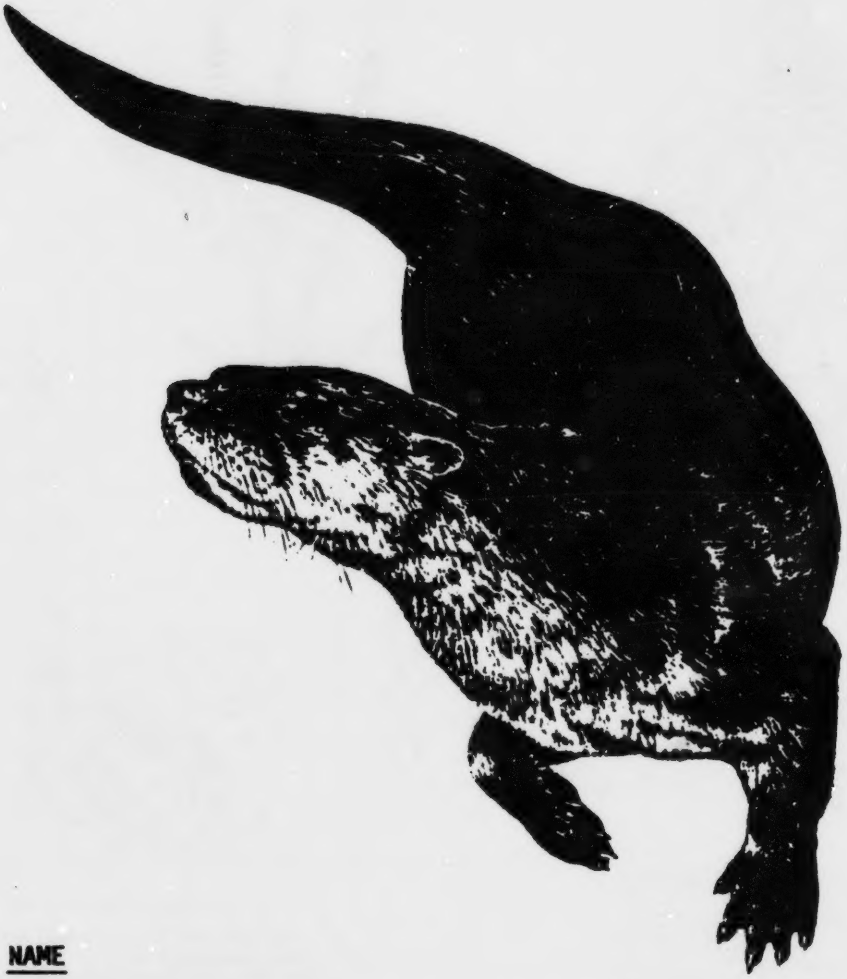
▤ Common ⬚ Occasional ☐ Rare - Most of area non-existant



Diagrammatic section-view of muskrat burrow and feeding platform, all under a layer of snow.

- a. Feeding station on the ice, with chamber and plunge hole down through the ice.
- b. Simple burrow, with underwater entrance and nest chamber, c, at the end above water level.
- d. Pile of vegetation covering an accidental hole (?) or ventilation hole that leads down to the burrow.

Biology of The Otter



NAME

The scientific name for the otter is (Lutra canadensis). The otter is commonly known as the Canada otter or "river otter". It is a member of the weasel family or mustelidae ie: the musk carrying family of animals.

CHARACTERISTICS

The otter has a long, slender body which is powerfully muscled. The legs are very short and the hind feet are webbed. It has a long, tapering, muscular tail which is furred and somewhat flattened on the sides. Otters are about 35 - 55 inches in length, including the tail and stand about 10 inches at the shoulder. They weigh from 10 - 30 pounds. They have large, protruding eyes (like a seal), and a blunt, broad muzzle and small, rounded ears. The whiskers on the snout are quite bristly and prominent.

The fur is short, very dense and very durable. The colour is a deep, dark brown, almost black in appearance and very glossy. The lower parts are much lighter. There is a thick layer of fat under the skin which helps to insulate the otter against cold. The otter is a semi-aquatic mammal and has muscles which close off the nostrils and ears when swimming underwater. The claws on the feet cannot be retracted. There is no seasonal change in colour and the sexes, immatures and adults, are difficult to dstinguish from each other. The fur of the otter is moulted twice a year - in the spring and fall.

REPRODUCTION AND NATURAL HISTORY

Otters are sexually mature at two years of age. The mating season is from March - April and mating takes place in the water. The gestation period is 9 1/2 to 12 months, with the young being born in March or April. Litter size varies from 1 - 6, averaging 2 - 3.

The young are blind and toothless and are fully furred. They are weaned at about 3 1/2 to 4 months of age. The family travels together for up to 8 months or until the next litter is born. In the wild, otters live up to 20 years.

FOOD

Otters subsist mainly on fish, frogs, clams and cray fish. They may kill an occasional muskrat or beaver and do eat some vegetation in the summer months. Otter usually hunt alone except when they are in family groups and do not cache food for later use.

HABITS

Being semi-aquatic, otters rarely stray far from water; they are the most aquatic of the weasel family. They are fun-loving and often seem to enjoy playing or sliding on snow or mud banks. Otters are strong, powerful animals and excellent swimmers. They are quite social and rarely fight among themselves. Otters do not build houses of their own but frequently use beaver lodges or bank dens for shelter. In areas where they are living, their dropping piles are commonly seen; these areas are used repeatedly as toilets and also to roll and rub themselves in.

Otters are active mainly in the evenings or at night but may occasionally be seen during the day. They are active the year round and are shy, wary creatures. Otters have musk glands and may give off a strong odor when alarmed.

POPULATION CHANGES

Otters are never overabundant but seem to maintin a sparse but stable population in most areas. They are often associated with beaver ponds and their numbers fluctuate in relation to beaver populations.

Otters are subject to a number of parasites and diseases such as tuberculosis, guinea worm, giant kidney worm, ticks, roundworms and flukes; these may control the numbers of otter.

HABITAT

Otter are found throughout the boreal forest regions of Alberta and Canada, prefering areas where water bodies are close together and abundant. They are frequently found around beaver ponds.

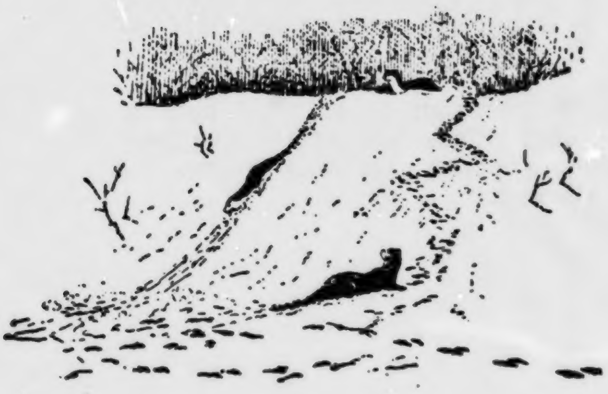
ECONOMIC VALUE

Otter have short, dense fur which is extremely durable and is used mainly for collars and trim, but also for coats, usually for men. It is in high demand but because of its comparitive rarity in Alberta, it comprises less than 1% of the total Alberta fur value.

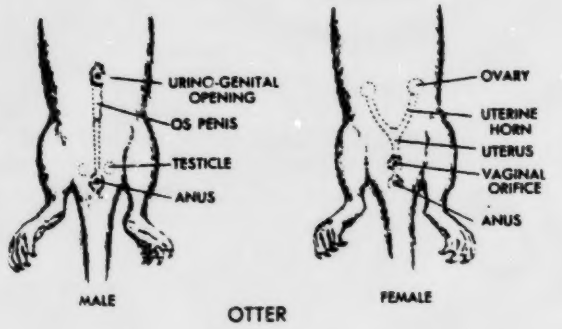
DISTRIBUTION AND STATUS

Otter are found mainly in the northern half of Alberta. They are almost non-existent in the south half of the province, scarce in the northwest quarter of the province and adequate in the north east quarter of the province.

Otter have recently been reintroduced to the Kaninaskis area of south west Alberta.

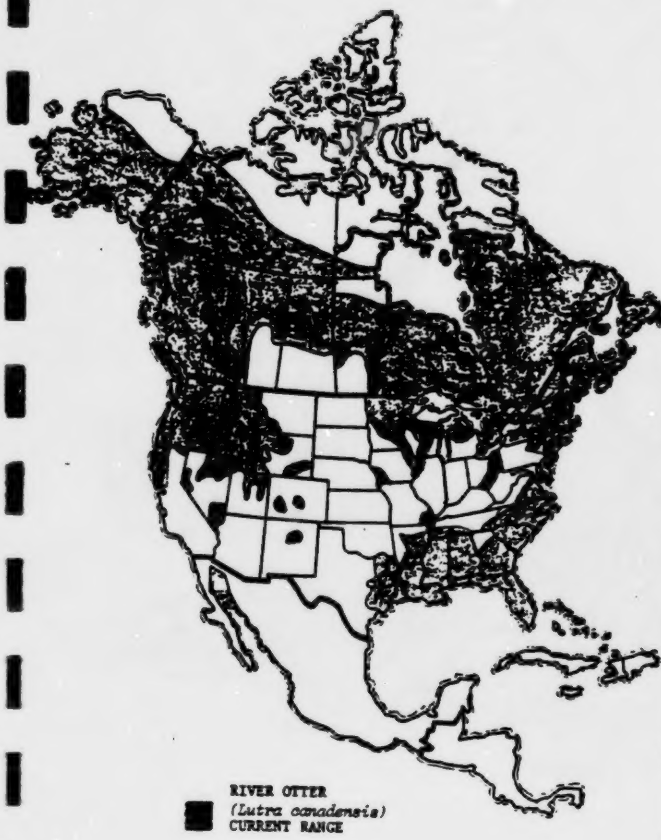


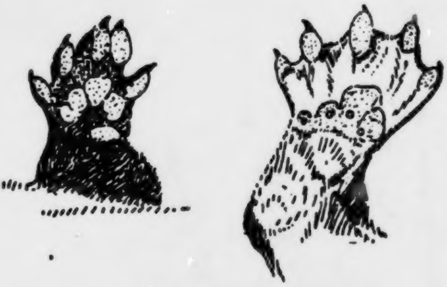
The otter slide.



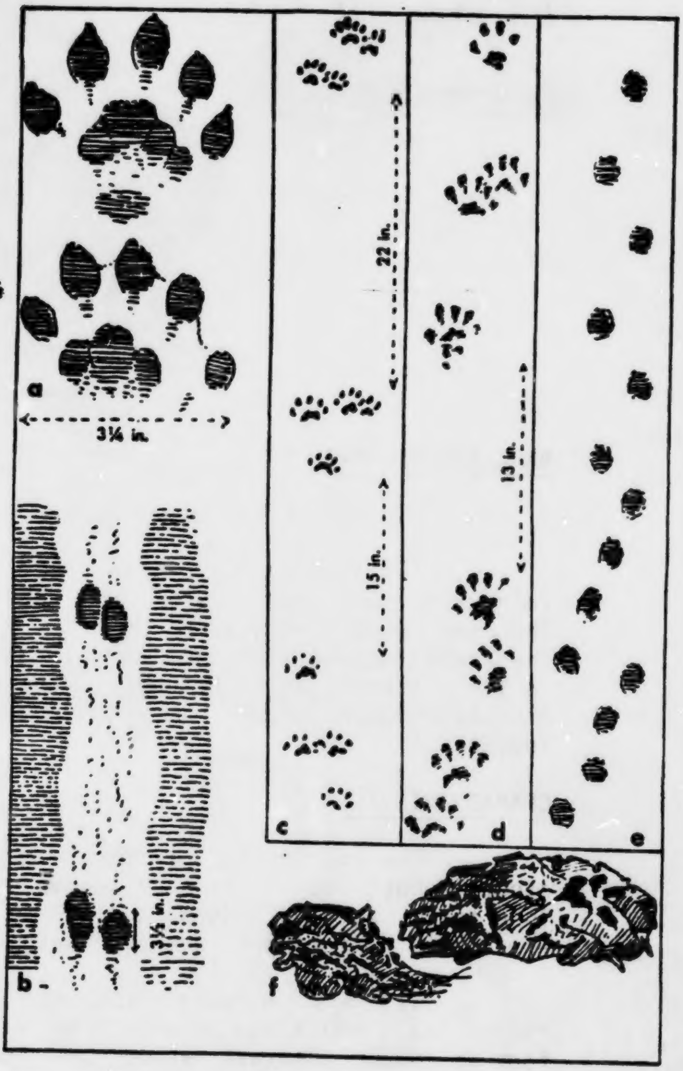
Normal position of genitalia in male and female river otter. The presence of penis is readily determined in the male river otter by palpation in the live and dead animal

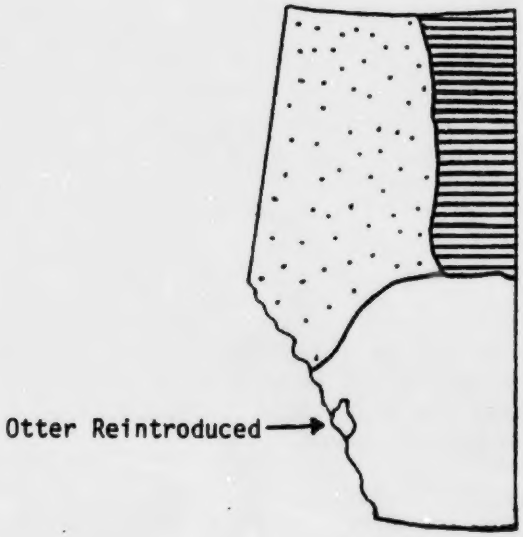
OTTER - RANGE, TRACKS, DROPPINGS


RIVER OTTER
(Lutra canadensis)
CURRENT RANGE



Forefoot and hind foot of River Otter


a
3¼ in.
b
3½ in.
22 in.
15 in.
13 in.
c
d
e
f


Otter Reintroduced

TRACKS

RANGE

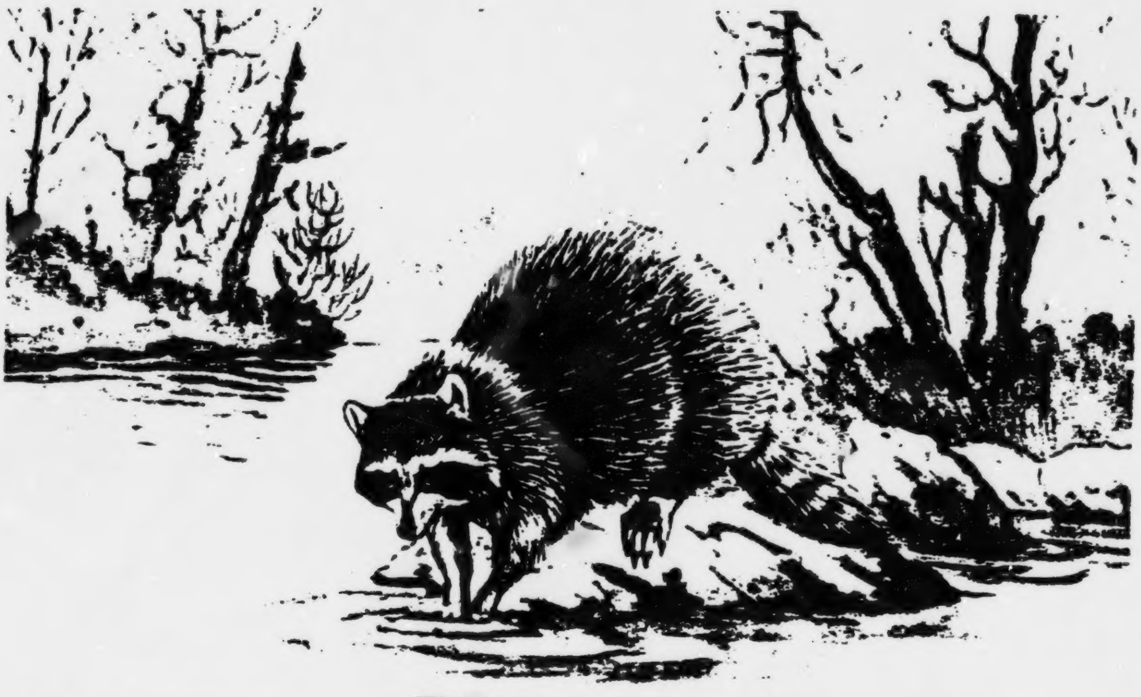
Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ░ Occasional ☐ Rare - Most of area non-existant

Otter tracks and scat.

a. Tracks in wet sand
b. Tracks in deep snow trough.
c and d. Tracks of otter running in soft mud
e. Mixed gait, slowing to a walk, in soft sand
f. Otter scat, about ⅔ natural size.

Biology of The Raccoon



NAME AND HISTORY

The scientific name for the raccoon in (Procyon lotor).

The raccoon is distantly related to the bear family. Its scientific name means "before the dog" (Procyon) and "washer" (lotor). The name raccoon originated from the Algonquin word "arakunem" meaning "he who scratches with his hands". It is the only species of animal in North America which belongs to the procyomidae family. It is more closely related to the coati mundi and panda which live in tropical regions.

CHARACTERISTICS

The raccoon is a carnivore of small to medium size, having a stout, robust body. Its body length can be up to 35 inches with a 10 inch tail. Average weights vary from 18 pounds (males), to 16 pounds (females). The largest one ever weighed exceeded 60 pounds.

Its most notable features are its black facial mask and ringed tail, which may have as many as 4 - 6 black rings. The rings form a clear contrast along the tail portion; its body hair is grizzled gray or brownish-black and its under coat is brown and wooly, covered by long guard hair.

The raccoon's face tapers from the short, rounded ears to a button-like nose. Its legs are relatively short and its feet are narrow and have five toes, which are finger-like and quite long. It cannot retract its claws. The feet have naked pads, resembling those of a man and the front feet are especially sensitive and agile. The raccoon's keen eyes provide it with good night vision since it is nocturnal by nature. It is a good climber and fighter when threatened. It possesses good hearing and a keen sense of smell.

REPRODUCTION

Female raccoons begin breeding the following spring after birth, however, males require two years to mature sexually. Breeding takes place during January - March (depending on weather), and occurs intermittently when they come out for short periods of intense activity from their partial hibernation. During this period, males may travel up to 15 miles a night in search of a mate; they are polygamous by nature. Females will drive off unwanted males, however, the acceptable male will move into the nest or den and stay for a week or so. The gestation period is some 63 days with the young being born in mid-April to mid-May. A litter of 1 - 6 is born (average 3 - 4), fully furred, except for the tail. They remain blind for the first 18 - 23 days. At about 6 weeks, they leave the nest area to explore the nearby vicinity and they are weaned at 2 months. They remain together as a family unit, generally on the mother's range, for the first winter, thereafter, they disperse. Raccoons are known to live up to 14 years of age.

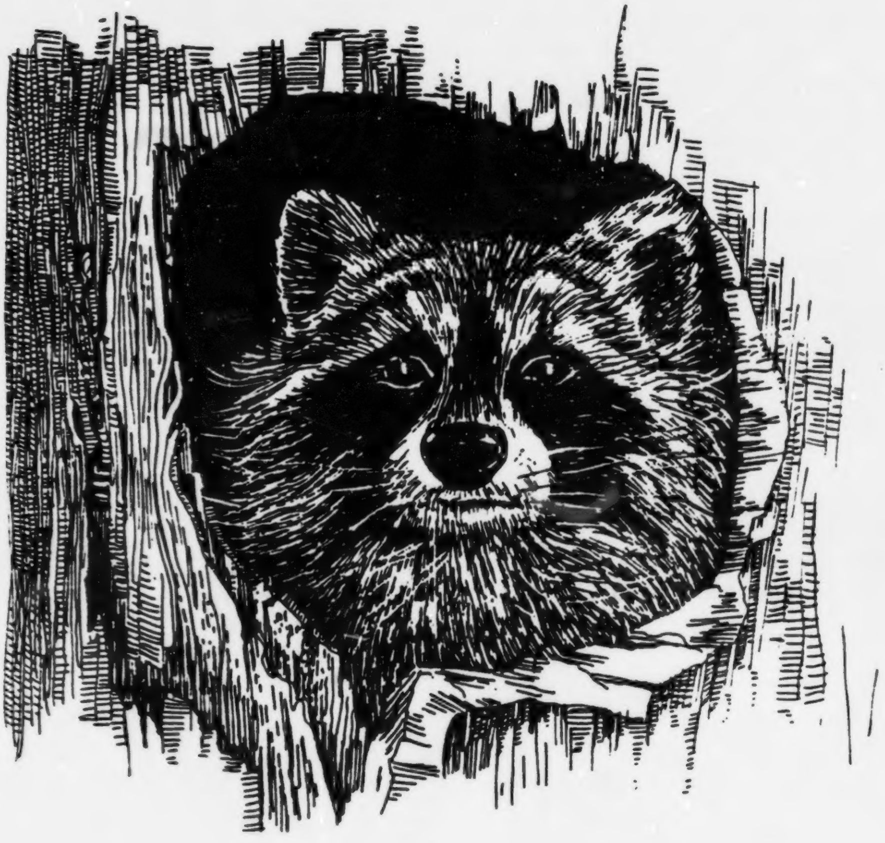
FOOD

The raccoon is an omnivore and therefore, can eat a great variety of items. Its favorite food is clams, young birds, eggs, small mammals, frogs, fish, insects, fruit, nuts, berries and corn. In the spring, when the female is providing food for its young, the diet is mostly composed of animal matter. In summer, as plants are abundant, the raccoon becomes a vegetarian. Due to his nocturnal nature and his varied diet, he often raids garbage cans and corn fields. During fall, they gorge themselves on nuts, corn and nests of insects, including bees and ants, so that a large reservoir of fat is built up. By late fall, one-half of the raccoons weight can be fat. Even in winter when it comes out of its inactivity, it will eat carrion and other available food quite readily.

HABITS

Raccoons make a churring noise while feeding or travelling in a family unit, however, snarling is common during fighting, especially when cornered or a dispute for food arises. Its chief habit is to handle objects with its front feet. Its front paws are used to discover food stuff under water and not to actually wash it. Its favorite areas are, therefore, near creeks, rivers and lakes.

Raccoons are quite sociable within their family group and even den up together but conflicts occur when other groups intrude into their area. They are very active at night, but do enjoy sun bathing, often from high tree nests. They are good climbers, strong and very agile and when cornered, they become furious and effective fighters. They are very intelligent and cunning and therefore, can be easily tamed. In Alberta, raccoons are not permitted as pets since their nightly excursions increase chances for contacting rabies.



POPULATION

The raccoon population is very low in Alberta. Although their range is expanding, only a few per year are taken by trappers. The raccoon's chief natural predators in Alberta are the horned owl, which preys on the young, and the badger, where these exist. They often have parasites such as lice and fleas and wood ticks. They are subject to distemper, meningitis and rabies. Weather conditions limit the raccoon's population in Alberta to a great deal.

HABITAT

The raccoon's chief habitat is in forested areas along creeks, rivers and lakes that have an abundent food supply. It has adapted itself well to humans and therefore, is found readily in and near cities and towns. It has a home range of about one square mile, but does roam considerably. It has various dens and nests within its range and prefers hollows in old logs and trees, but does den up for the winter in abandoned burrows, old buildings and culverts.

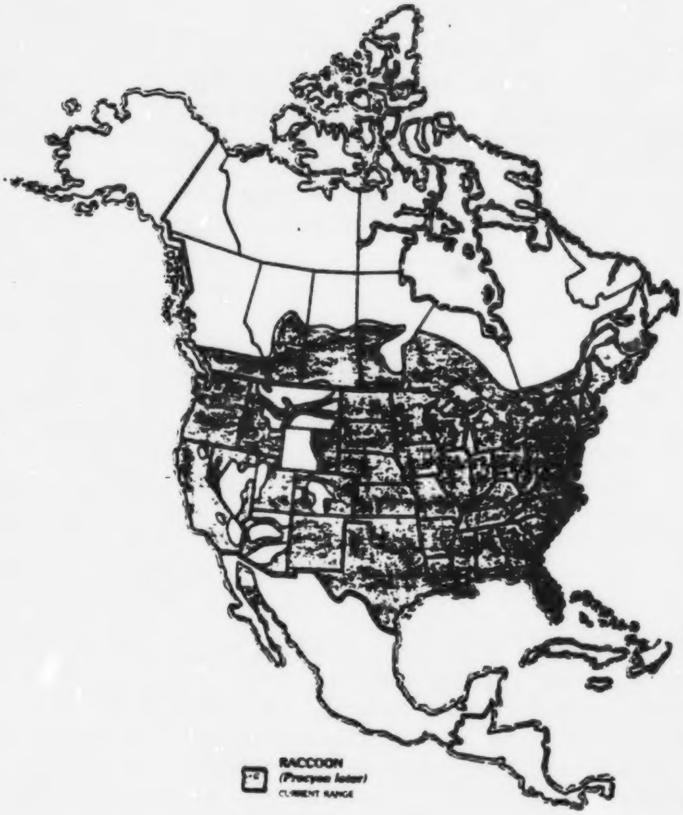
ECONOMIC VALUE

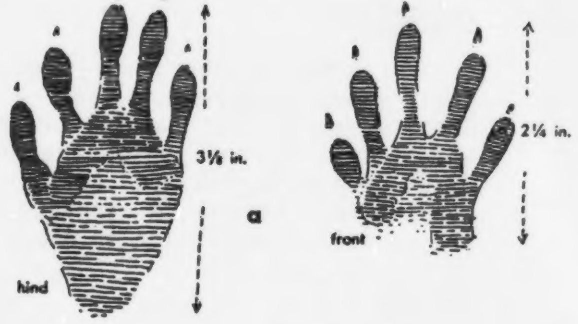
In Alberta, an average of only 100 - 200 raccoon pelts have been taken per year year during the past decade so the fur value is negligable to the overall fur produced. Due to its nature, raccoons cause considerable damage to farmers and bird life, therefore, no programs to increase their population are being undertaken. Raccoons, however, do have a high aesthetic appeal to the public and indiscriminate hunting and trapping just to get rid of them should be curtailed.

RANGE AND STATUS

Raccoons are rare in Alberta and are found mainly in the southern quarter of the province. Their range appears to be expanding.

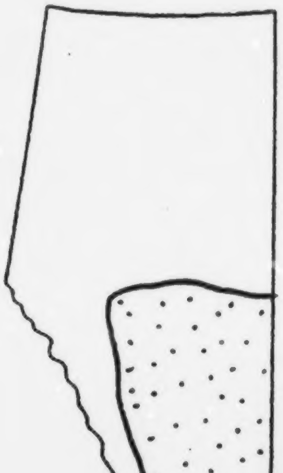
RACCOON - RANGE, TRACKS, DROPPINGS


RACCOON
(Procyon lotor)
CURRENT RANGE


3⅛ in.
a
hind
2¼ in.
front

Tracks of raccoon

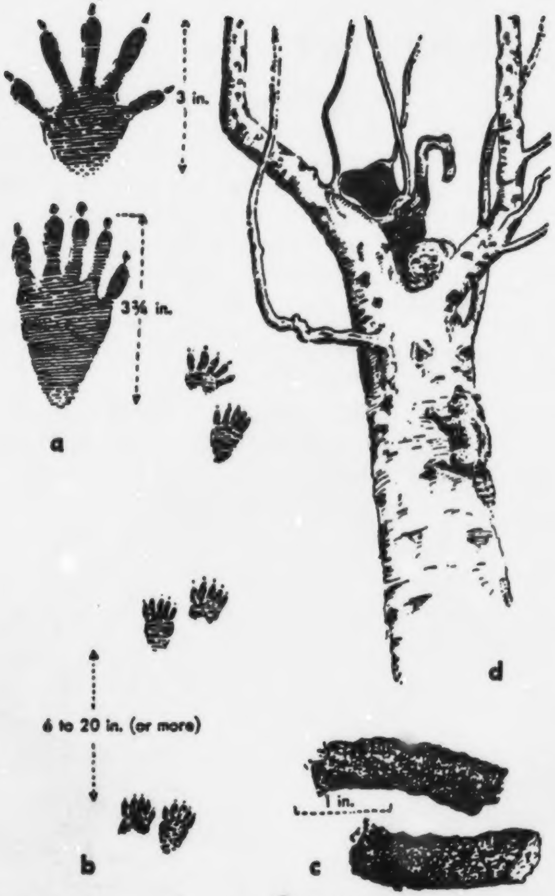
a. Hind and front tracks of raccoon.



RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

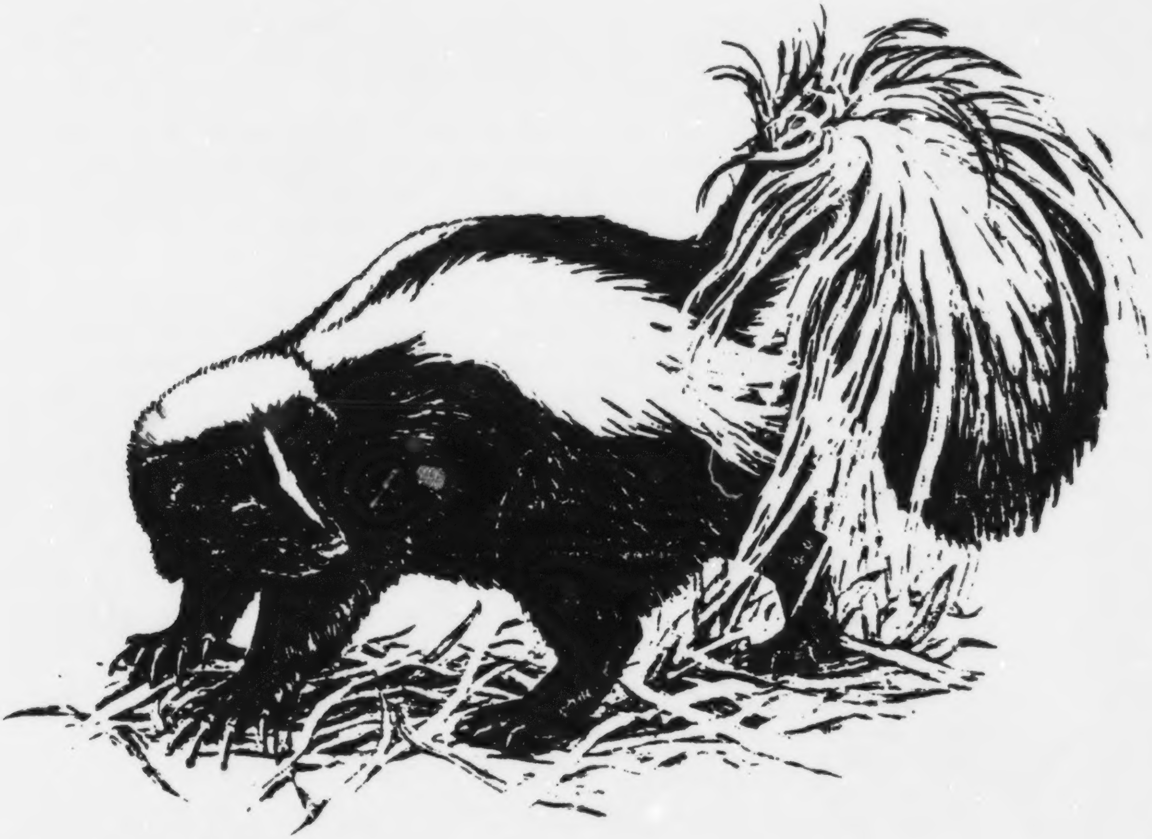
▤ Common ▨ Occasional ☐ Rare - Most of area non-existant


3 in.
3⅝ in.
a
6 to 20 in. (or more)
b
1 in.
c
d

Raccoon.

a. Typical tracks in mud, the front track above.
b. The track pattern, walking.
c. Rather typical droppings, with lack of taper at the ends.
d. Raccoon tree

Biology of The Striped Skunk



NAME AND HISTORY

The skunk was formerly far more important as a furbearer of value than it is today. During the 1920's - 1940's, thousands of pelts were harvested, but there is no longer much of a market demand for skunk pelts and they are of little value and importance to Alberta's fur industry today.

The skunk has the most well developed and powerful musk glands of the weasel family or (Mustelidae). The skunk's scientific name is (Mephitis mephitis).

CHARACTERISTICS

Skunks are easily identified by the distinctive black and white markings on the body.

The pattern of white markings varies considerably and in some individuals, may consist of only some white patches on the head, while in others, two broad white stripes may encompas much of the top of the head, back, sides and tail. The remainder of the body is black. This colouration probably serves as a warning to other animals or man of the skunk's powerful defenses.

The head is small and sharply pointed with small ears; the body is chunky and about the size of a cat with relitively short legs. The skunk has well developed claws on the front feet for digging and walks with a rolling, flat-footed gait. The tail is large and bushy.

Skunks vary in length from 17 - 28 inches, stand 8 - 13 inches in height and weigh from 4 - 15 pounds. Both sexes have a pair of musk glands on either side of the anus. These types of glands are found in all members of the weasel tribe, but the ability to spray a stream of foul smelling liquid is the most highly developed in skunks. Skunks can spray their liquid up to 13 feet but are usually accurate only to about 6 feet. The odor can be carried far and wide by the wind.

REPRODUCTION AND NATURAL HISTORY

Skunks usually mate in February-March. Often the timing coincides with the first warm spell after the new year. The gestation period is about 63 days and the young are born in May. The average litter size is about 6, but may vary from 3 - 9. The young show the distinctive colour patterns on their skin at birth. Their eyes are closed and do not open for about 30 days.

At about 6 weeks to 2 months, the young begin to travel and forage with the adults. The musk glands of the kits are fully operational by one month after birth. The family stays together all summer and, by September, they find or dig a deep burrow to be used as the winter den. The inner chambers are large enough to accommodate the entire family plus perhaps a few neighboring skunks who prefer company for the additional warmth provided.

Skunks may be seen out and about from time to time during the winter if warm spells occur.

FOOD

The largest part of the skunk's diet consists of insects such a grubs, beetles and grasshoppers, but the skunk will eat virtually anything and is classed as an omnivore. Small mammals such as mice comprise about 10 - 20% of the diet and frogs, birds' eggs, berries and other vegetble matter make up an additional 25 - 30%.

HABITS

Skunks are mainly active at night or in the early morning or evening and do not generally travel great distances. The males have separate home ranges of up to 1 square mile in size. The females' ranges may overlap with other females, and vary from 1/2 to 1 square mile in size.

Skunks do a great deal of digging with their large front claws, probalby mostly in search of grubs. They also dig dens to winter over in or also den under buildings or in hollow trees or logs, often congregating together for mutual warmth in December to late February.

Skunks are very prone to rabies infection and any skunk about in daylight which acts tame should be avoided.

Skunks generally give sufficient warning of their intention to spray by stamping their feet, raising their tail and pointing the rear in the direction they intend to spray in.

HABITAT

Skunks are not usually found in densly forested areas, but rather prefer partially open country with a mixture of bush, field and hedgerows. They are also commonly found in close proximity to human habitation, including towns and even urban areas. They are frequently seen around abandoned building sights and garbage dumps.

Skunks may den under buildings, in old woodchuck holes or in rock piles. They generally cover the entrance with leaves and grass.

ECONOMIC VALUE

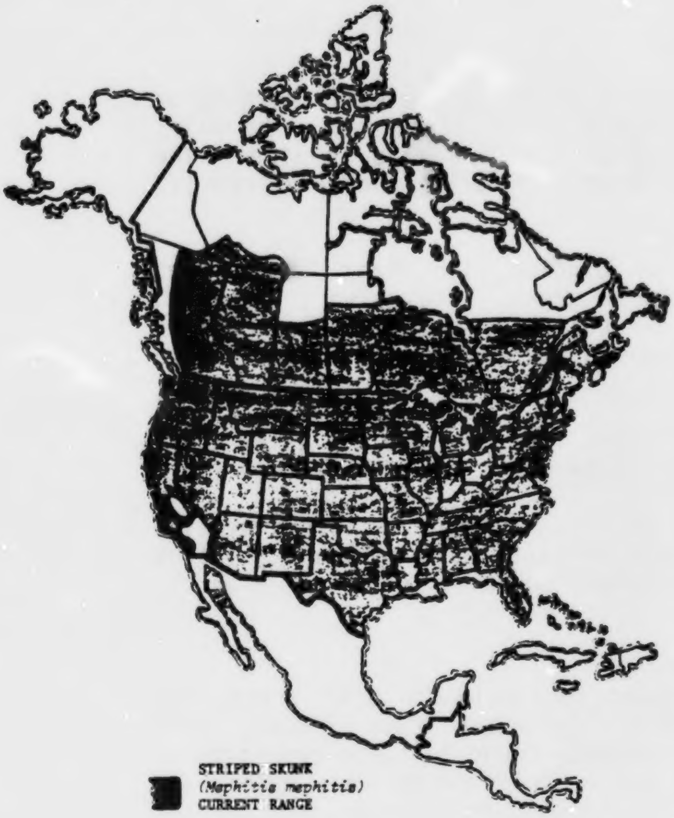
There is limited demand for skunks' fur and as a result, they are of little economic value at the present time. Skunks are beneficial in eating some insects and rodents but also are a nuisance because of their digging habits and foul odor.

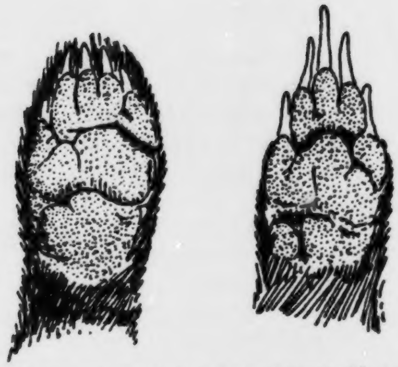
Economic loses are also incurred because of the threat of rabies that is posed by skunk populations.

DISTRIBUTION AND STATUS

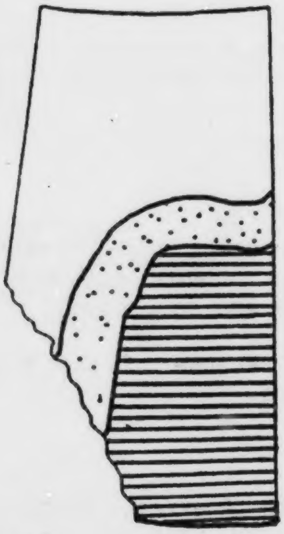
Skunks are found throughout North America, south of the Arctic. They are scarce in the northern part of Alberta, but abundant in the southern 2/3 of Alberta.

SKUNK - RANGE, TRACKS, DROPPINGS


STRIPED SKUNK
(Mephitis mephitis)
CURRENT RANGE



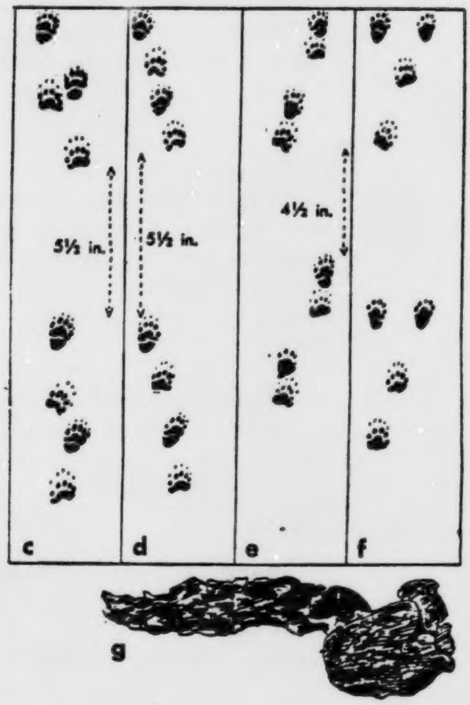
Hind foot and forefoot of Striped Skunk, ⅓ size



RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ⁘ Occasional ☐ Rare - Most of area non-existant


5½ in.
5½ in.
4½ in.
c
d
e
f
g

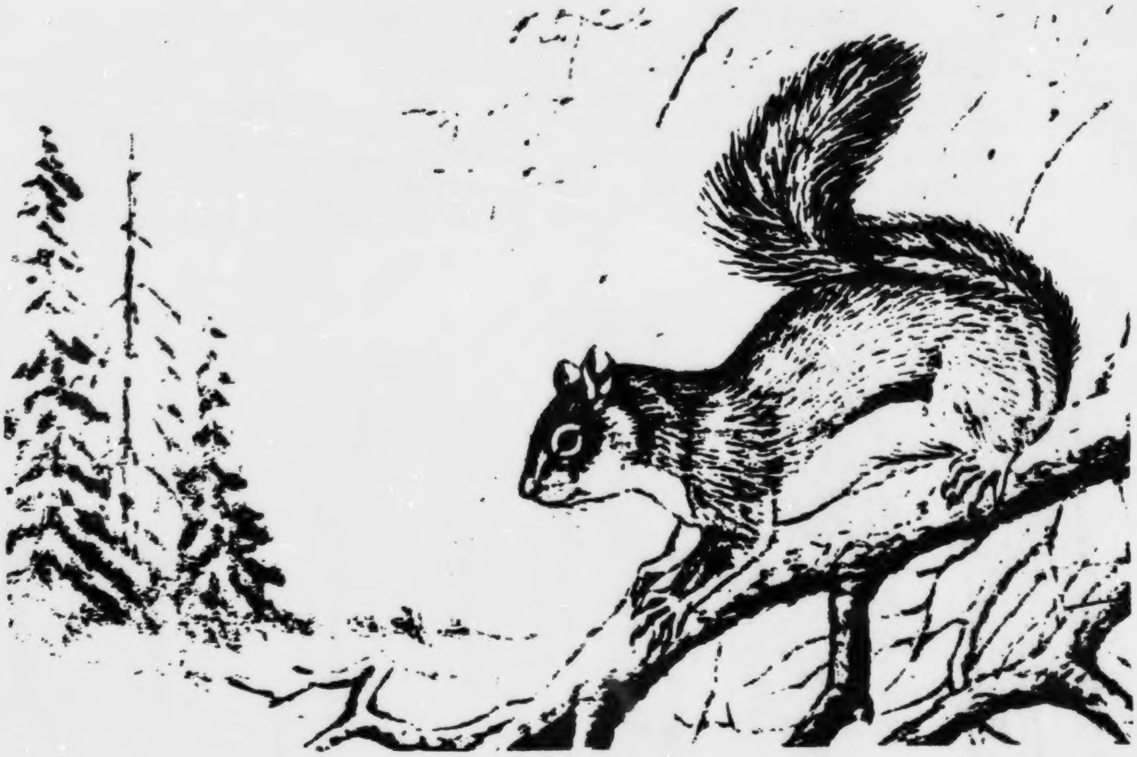
Tracks and droppings of striped skunks.

a. Tracks of *Mephitis* sp., in mud

c, d, e, f. Various gaits of the common skunk; note variations in placement of hind feet, which can be recognized by the heel.

g. Scat of common skunk.

Biology of The Red Squirrel



NAME AND HISTORY

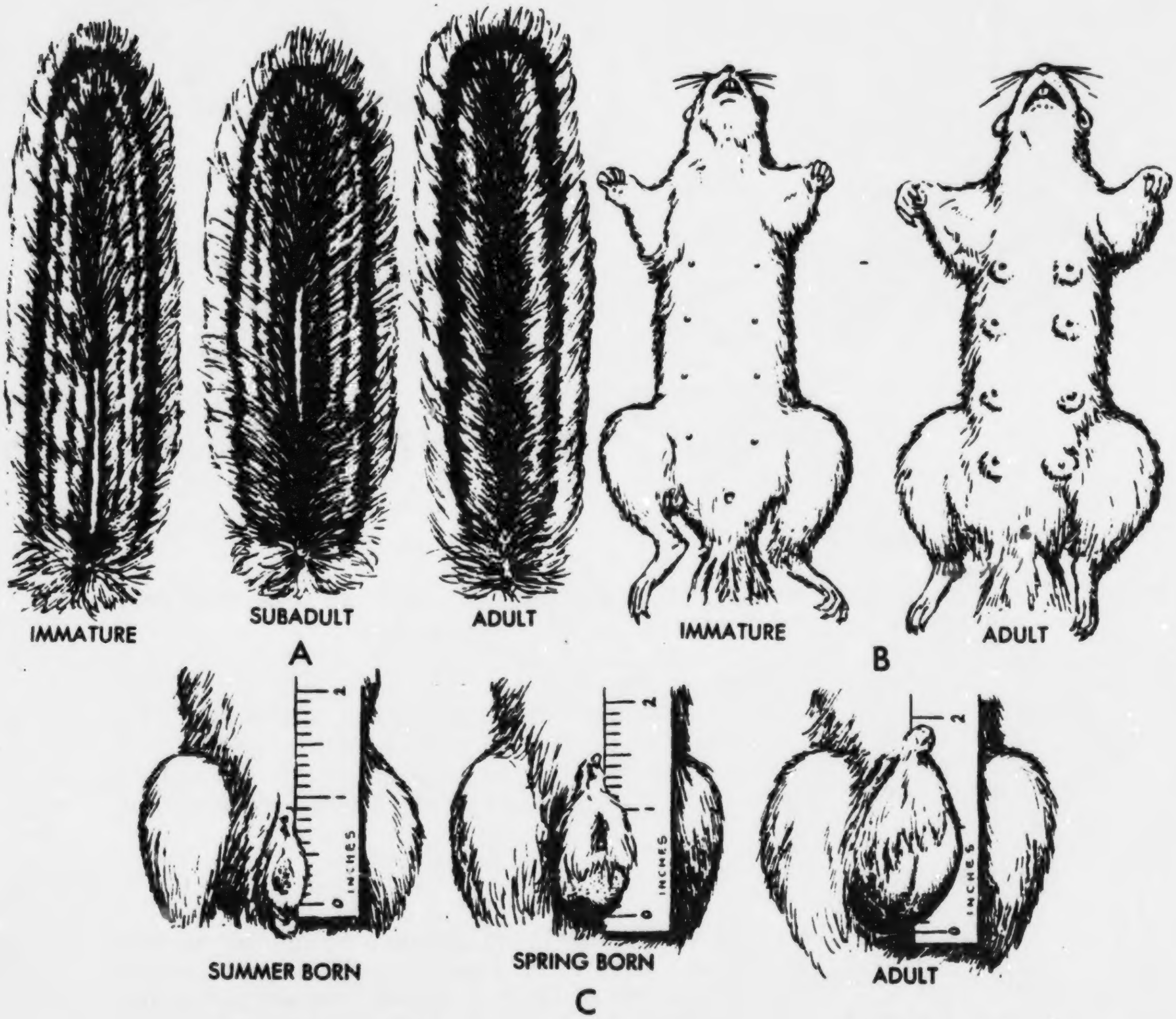
The scientific name for the red squirrel is (Tamiasciurus hudsonicus), and the Cree name is Unikwuchas.

In Alberta, there appear to be two sub-species of the squirrel - the Mackenzie and British Columbia Red Squirrel. The latter is more of a mountainous species, is slightly darker and has a shorter tail. It scientific name comes form two Latin words, " Tamias" means "storer", and "sciurus" means "shadow of a tail".

CHARACTERISTICS

The red squirrel is a tree-dwelling animal, belonging to the rodent family. Its overall length is from 10 - 15 inches, which includes a 4 - 5 inch flat, bushy tail. Summer and winter coats differ somewhat. The shorter hair of the summer coat is glossy olive-brown or tan, with occasional black flecks but appears reddish from a distance. The squirrel has a distinct white eye ring and a blackish stripe along parts of its sides near the flanks. The under parts are whitish-gray and the tail has a rusty-reddish appearance. When the animal is sitting, the tail will always be curled up along its back.

In the winter, the coat has longer hair which becomes silkier and denser while changing to a much grayer appearence with the under parts being much grayer also. Its overall weight is from 5 - 11 ounces. The head is rather blunt and rounded with large, bulging eyes and fairly large, erect ears which develop little tufts of hair in the winter. The soles of the feet are furred, however, the pads are bare with distinct, sharp toe nails. Squirrels have 8 teats and have glands near the anus that can give off a musky odor.



Sex and age criteria for squirrels *A* Age may be determined by examination of the ventral surface of the tail. *Left:* Juvenile, the shorter secondary hairs are absent on the lower side of the tail bone. *Center:* Subadults, short appressed hairs are present on lower third of the tail bone. *Right:* The appressed hairs obscure the outline of the tail bone in the adult (after Sharp 1958). *B* Mastology of the female squirrel. *Left:* Juvenile, with nipples minute and barely discernable. *Right:* Lactating adult, nipples black pigmented with most of hair worn off. *C* Scrotal measurements of male squirrels. *Left:* Summer born, the testes are abdominal and the skin is just beginning to pigment. *Center:* Spring born, the testes are large and the scrotum is pigmented but it is heavily furred. *Right:* Adult has shed most of the fur from the scrotum

REPRODUCTION

Female squirrels begin breeding at one year and are capable of having two litters per year, usually April-May and August-September. In northern Alberta, it is probably more common for females to have one litter per year. The mating period is in March-April and June-July, with a gestation period of about 36 - 40 days. The litter size is from 3 - 6, but the average is about 4 young. These are born pink, naked, blind and deaf, with only the claws well developed. After about a week, the hair begins to appear, their hearing begins at about 18 - 20 days, while their eyes are opened in 4 - 5 weeks. They are weaned in 7 - 8 weeks and begin exploring the outside at 10 weeks, at which time, they are about 1/3 grown. A period of training with the mother then occurs and she may carry them to an alternate nest when disturbed. They dispurse at about 4 1/2 - 5 months. The young are born in nests made of moss, leaves and grass, in tree cavities, wood pecker holes, or in old birds nests and usually, in dense branches. Squirrels are capable of living up to 10 years, however, in the wild, their average life span is much decreased.

FOOD

The squirrel has a wide variety of food, but prefers seeds from white spruce, balsam fir, black spruce, pine, and hazel nuts. It will eat mushrooms, buds, flowers, other seeds, insects and birds' eggs. The food is often hoarded and stored in mounds near the nesting or den sites and is usually much more than the squirrel will ever consume. At times, they are somewhat carnivorous and even eat young fledglings, mice and other creatures.

HABITS

Red squirrels are noisy, curious creatures mostly active during the early part of the day and again in the afternoon and occasionally on moonlit nights. It is quick to spread the alarm with its "chick - chick" and other noises when an intruder appears. It seems to be full of boundless energy, always moving about, often in a darting, jerky action. It generally stays within close range of its nesting area but will roam on bright, warm days. It reacts quite sharply towards jays and crows and will drive them off its feeding sites. The squirrel is very agile in the trees and can jump easily from tree branch to tree branch. Squirrels are basically a solitary creature but this changes during the breeding season. They are good swimmers and are shown to have crossed large rivers and lakes. Most of their time is spent in gathering food. Biting off cones and twigs and dropping them to the ground for hours on end is common. They later hoard these in piles called "middens" for their winter food supply.

POPULATION

Because they are very dependent on spruce cone crops, the squirrel population fluctuates widely from year to year. Thus, changes from scarcity to abundance can occur within a short time and estimates from a low of one squirrel per 20 acres to as many as 10 squirrels per acre are attainable. Since they are the food source for many animals such as marten, fisher, lynx, coyotes, fox, hawks and owls, their abundance is often kept in check by these predators. Lice, fleas and ticks do occur on them but due to their relative grooming habits, these are kept at a minimum. They are easily captured by trappers through snaring and incidents of 20 - 25 squirrels caught at one site are possible.

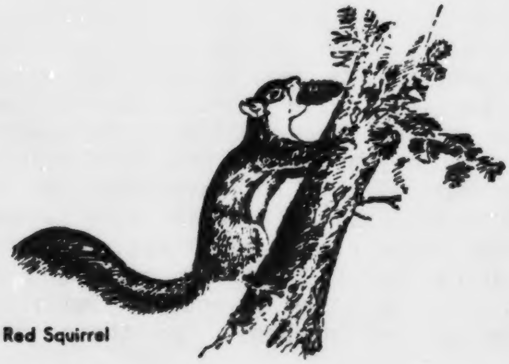
HABITAT

The squirrels' major habitat consists of mature forests of spruce, pine, and balsam fir. It is found along muskeg edges where black spruce cones are available, but it will venture into mixed forest areas. It can live close to man and is found within cities and towns and in farm yards.

ECONOMIC VALUE

Squirrel fur is fine and delicate and is mainly used for lining and trim. During the past 40 years, the value of squirrel fur has been the chief dollar producer on five occasions, while on 11 occasions, was in second place. Trappers often cover their immediate operating costs from squirrel pelts.

Besides the economic value, squirrels are responsible for distributing cones in the forest from which trees ultimately grow. Squirrels play an important role as food for many predatory birds and animals. They may, at times, cause damage to stored grains and young trees in nurseries or around yards.

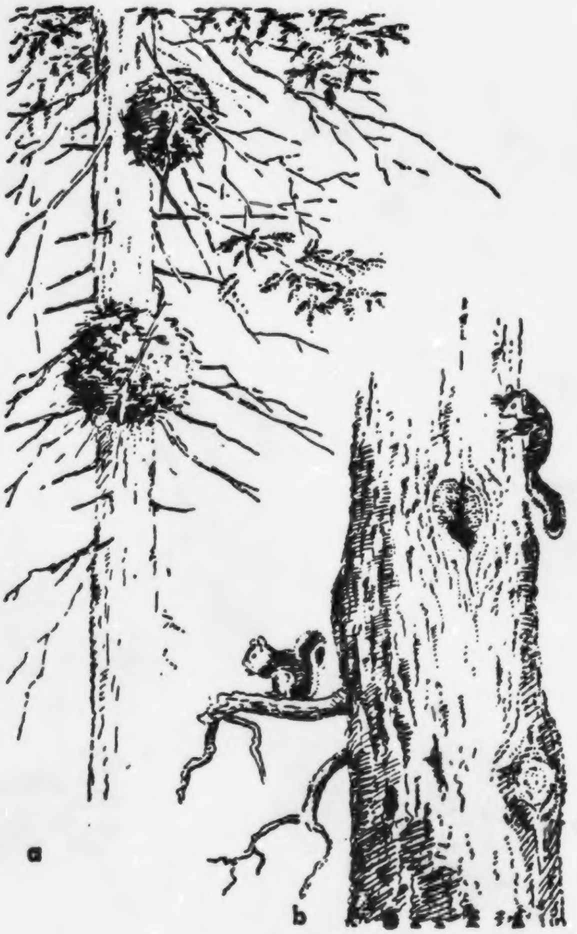


Red Squirrel

DISTRIBUTION AND STATUS

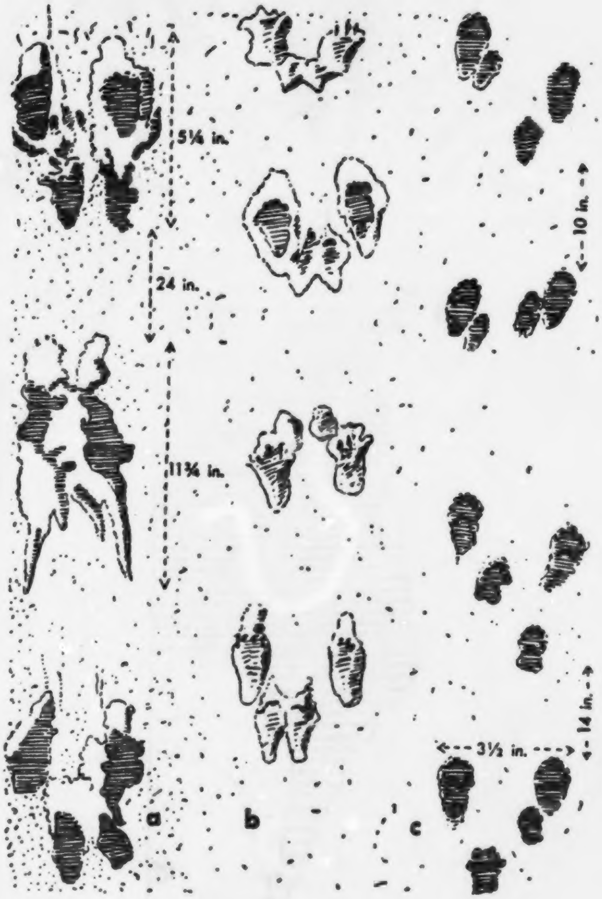
Squirrels are found throughout Alberta where coniferous trees exist. They are most common along the foothills and mixed forest areas.

Their number fluctuates primarily as a result of food abundance, and spring weather conditions. There is a fair population and no unique management strategy to increase their number exists.



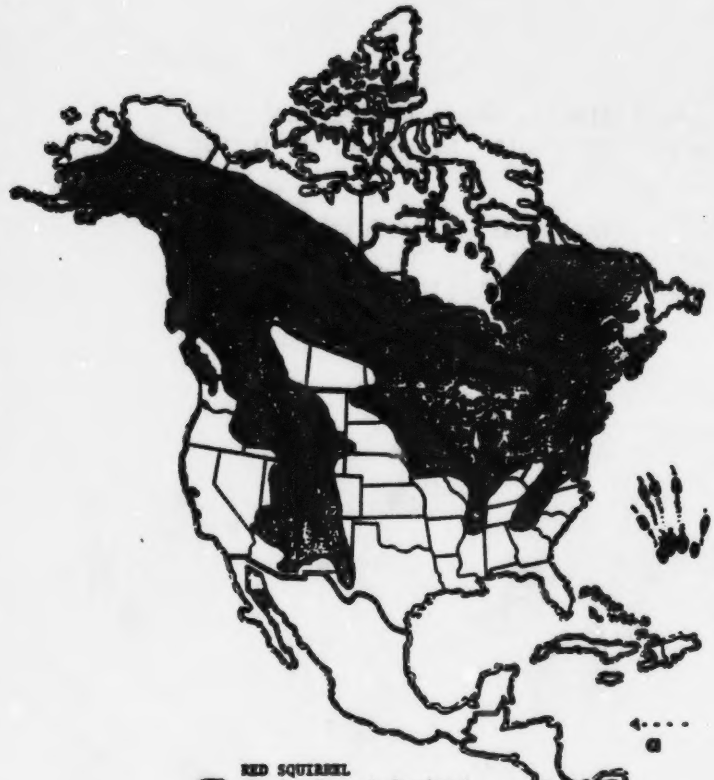
Red squirrel nests.

a. Outside nest in spruce tree
b. Hollow tree den

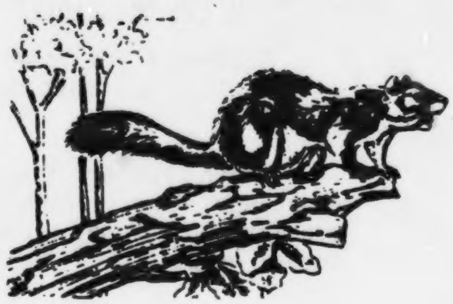

5¼ in.
24 in.
11¾ in.
10 in.
14 in.
3½ in.
a
b
c

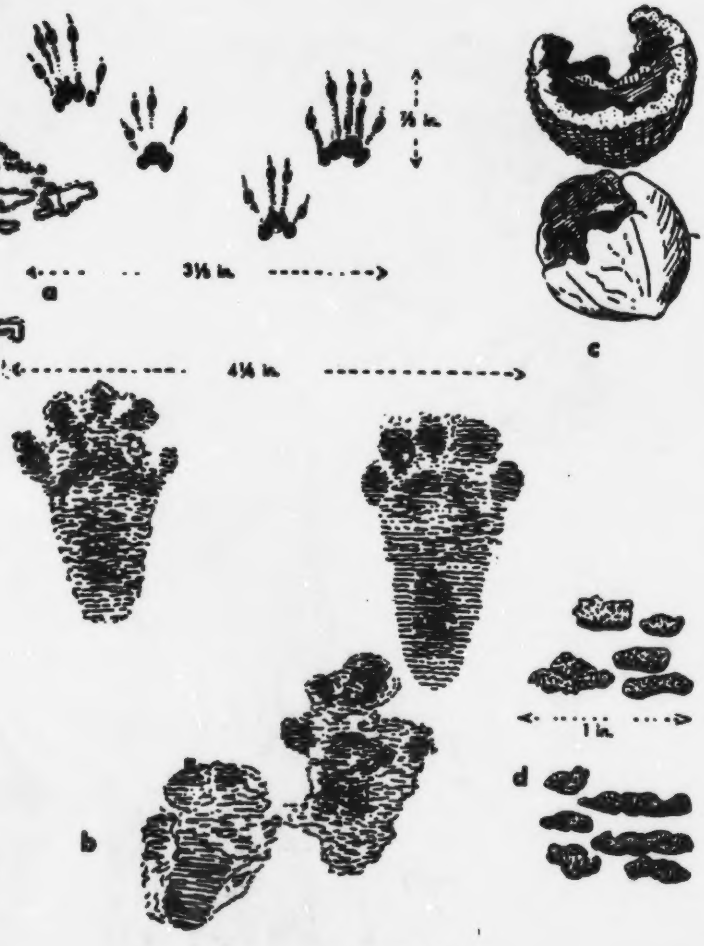
trails in snow, showing variations in squirrel tracks.

SQUIRREL - RANGE, TRACKS, DROPPINGS

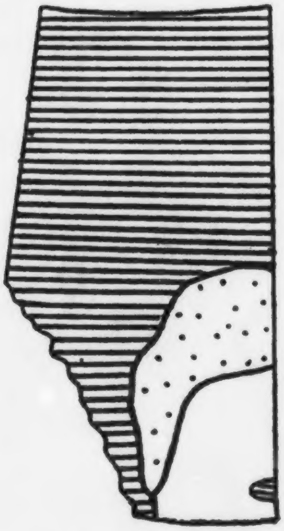


■ RED SQUIRREL
(*Tamiasciurus hudsonicus*)
CURRENT RANGE




a
3½ in.
¾ in.
c
4½ in.
1 in.
d
b

Red squirrel sign.



RANGE

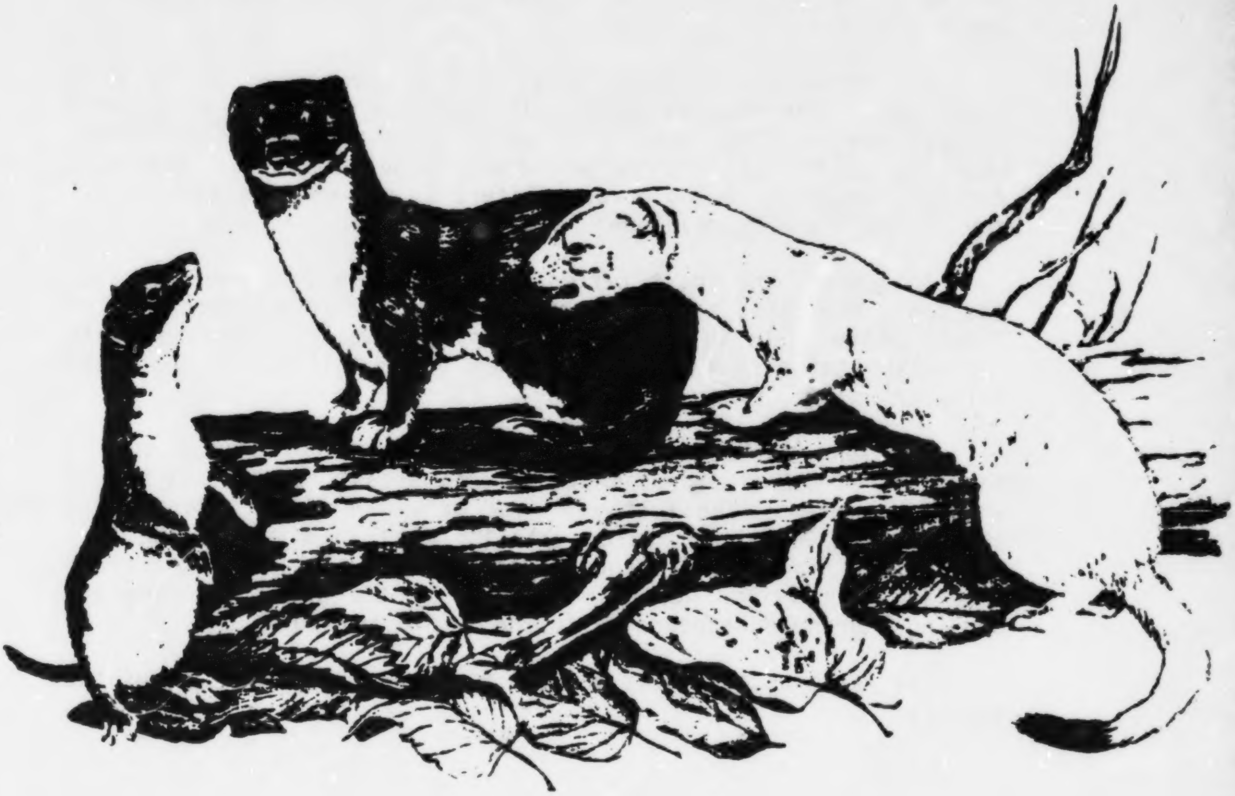
Map indicates the general ranges this species inhabits.
Abundance of the species may vary within the range.

▤ Common ⁚ Occasional ☐ Rare - Most of area non-existant

a. Tracks of pine squirrel in mud; about ⅔ natural size

b. Tracks of red squirrel in snow, about ⅔ natural size
c. Black walnut and hickory nuts opened by a red squirrel who found this unaccustomed food in a cellar.
d. Droppings

Biology of The Weasel



NAME

There are three species of weasels in Alberta. They are the short-tailed weasel or Ermine (Mustela erminea), the least weasel (Mustela rixosa) and the long-tailed or prairie weasel (Mustela frenata). The least weasel is the smallest carnivore in the world and is quite rare.

CHARACTERISTICS

The long tailed weasel is the largest of the three weasels found in Alberta and varies from 13 - 18 inches in length, including a 6 1/2 inch tail. It is the long tail which gives it its name. They are about 2 - 3 1/2 inches high and weigh up to 12 ounces.

The short tailed weasel is noticeably smaller, with a shorter tail, and varies from 8 - 14 inches long with a 4 1/2 inch tail. They weigh from 1 1/4 - 5 ounces and are 2 - 3 inches high.

The least weasel is very diminutive, with a very short tail, and males may measure up to 8 inches in length; females measure about 6 inches.

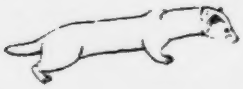
All three species have long, slender, muscular bodies with short legs. The head is small, with beady eyes, small ears and a pointed nose. They move with quick movements and a graceful, bounding gait. All three weasels change in colour with the seasons, and there is no colour difference between the sexes. All the senses are well developed in these weasels.

In summer, the short tailed weasel is dark brown on the back and legs; the chin, throat and undersides of the legs are white or light yellow. In winter, it is entirely white, sometimes with yellowish stains on the lower abdomen. The tail has a black tip all year round.

The long tailed weasel is much the same in colour as the short tailed weasel except that, in some areas, it does not become white in winter. The feet are dark brown in summer whereas the short tailed weasel has pale yellowish feet in summer. The tail has a black tip the year round. The moulting pattern is different than in short tailed weasles, starting on the back in spring and causing a brindled appearence to the facial markings.

The least weasel lacks the black tipped tail of the other two species.

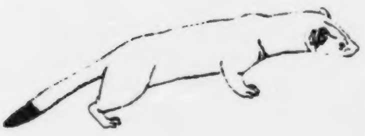
IDENTIFICATION OF THE WEASELS



LEAST WEASEL

Mustela rixosa

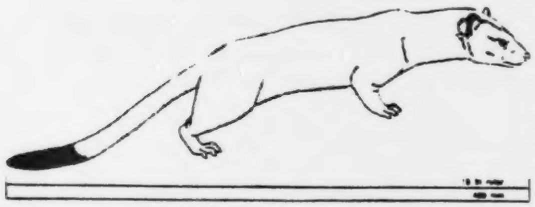
- 20 centimeters (8 inches) long; 70 grams (2 ½ ounces) in weight
- short tail without black tip
- white feet



SHORT-TAILED WEASEL

Mustela erminea

- 33 centimeters (13 inches) long; 170 grams (6 ounces) in weight
- black tip on tail
- white feet



LONG-TAILED WEASEL

Mustela frenata

- 45 centimeters (16 inches) long; 340 grams (12 ounces) in weight
- black tip on tail
- brown feet

REPRODUCTION AND NATURAL HISTORY

Both the short tailed and long tailed weasel females mature at 3 - 4 months and males mature at about 1 year. The breeding season is in July. There is a period of delayed implantation with a gestation period of from 9 - 10 months. The period of active pregnancy is unknown.

Litter size varies from 4 - 13, with an average of 6 - 8. The young are born in April or May in nests constructed in underground dens or hay piles. Mouse nests and burrows are often used and heavily lined with fine grass or mouse fur. The male begins to bring food to the den about one month after the young are born. The young are weaned at the end of 5 weeks and are able to hunt for themselves by 7 - 8 weeks of age. The family stays together until late summer and then disperses. The life expectancy of weasel is short, probably less than a year, although they are capable of living as long as 6 years.

The least weasel may have 3 - 10 young, but average 5 which may be born at any time of the year but most frequently are born in late winter.

FOOD

Weasels prey on small rodents such as mice, rats, voles, hares, rabbits and chipmunks. They also take shrews, birds, bird eggs, frogs, bats, insects, earthworms and may occasionally kill domestic chickens. The least weasel depends almost exclusively on mice for food.

The weasel hunts by tirelessly and persistently investigating every small hole, crevice, brush or rock pile it encounters. They will track prey by following their scent trails and generally attack prey by ambushing and pouncing on it. They are very quick and kill by piercing the base of the skull with their teeth. After killing, the weasel seeks water to drink, then eats the head and brain first. The weasel frequently kills more than it can eat and often caches leftover food. The weasel can consume up to 1/3 of its own weight in a 24 hour period.

HABITS

Weasels are curious, alert and bold. They are persistent hunters who seldom remain long in their dens and may be abroad hunting at any hour, although they are usually most active at night. Weasels are also active the year round.

Weasels occasionally hunt in pairs, but for the most part, are solitary except during breeding and rearing season. They are good swimmers and can also climb trees. All species emit a strong musk odor when alarmed, and the ermine may stamp its feet when annoyed.

Ermine may mark their trails with droppings. Home ranges vary from 30 to 400 acres.

POPULATION

Ermine and the least weasel populations often cycle with mouse populations. Several parasites can infect weasels, such as guinea worm and kidney worms. These probably have little impact on the population.

Weasels are subject to predation from hawks, owls, foxes, coyotes, dogs, cats and man.

In agricultural areas, weasels were formerly much more common due to the practice of stooking grain which provided ideal conditions for mice; with the advent of combines, weasel populations fell sharply.

HABITAT

Weasels prefer woodlands or open country with hedgerows, thickets or fencerows. They are usually found near water but are not semi-aquatic as is the mink. They frequent stone piles, brush heaps, wood piles, hay stacks, log piles and old, abandoned buildings.

Dens are shallow chambers about 6 inches underground with 2 - 3 entrances and are lined with mouse fur or grass.

ECONOMIC VALUE

The fur of the ermine or short tailed weasel was once reserved for use by royalty, but today is of minor importance in the fur trade.

The fur of both the long and short tailed weasel is fine and of good quality and is used in garments and as lining and trim. The long tailed weasel commands a higher price because it is so much larger.

The least weasel is seldom taken and is so small that it is of little or no value in the fur trade.

Weasels account for from 1/2 - 1% of the total fur value annually in Alberta.

Weasels play an important role in helping to control rodent populations. Weasels are protected along the South Eastern side of Alberta in an effort to prevent rats from entering the province.

DISRIBUTION AND STATUS

Weasels are found throughout North America.

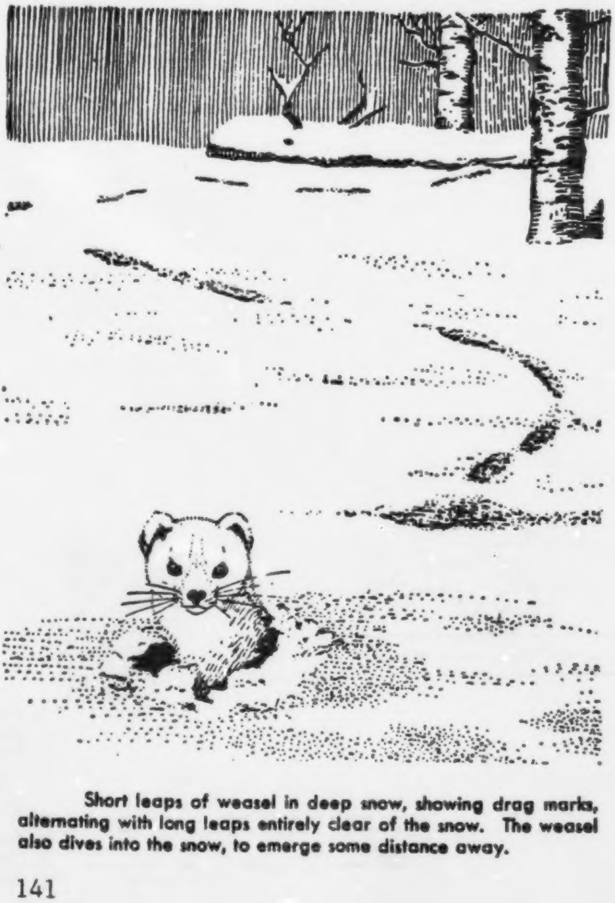
In Alberta, the short tailed weasel is found throughout the province but is most common in the northern portion.

Its status is adequate to abundant in the northern 1/2 of the province and is scarce in the southern 1/2.

The long tailed weasel is most common in the southern 2/3 of Alberta and is rarely found futher north than this.

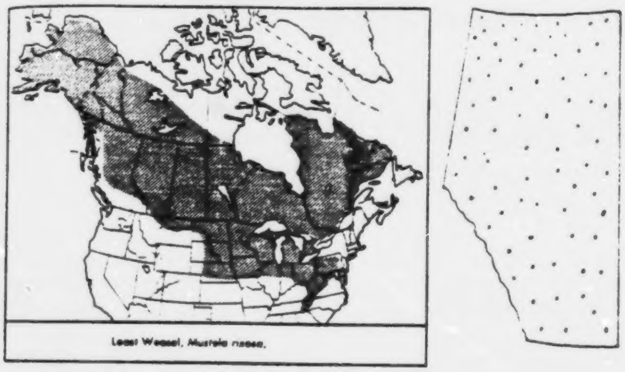
The least weasel is found throughout the province but is not plentiful anywhere in its range.

NB: There are indications that the Long Tailed Weasel is decling in Canada. Trappers should set strict quotas for themselves to avoid overharvesting this species.

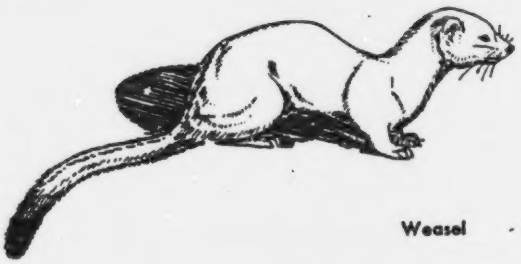


Short leaps of weasel in deep snow, showing drag marks, alternating with long leaps entirely clear of the snow. The weasel also dives into the snow, to emerge some distance away.

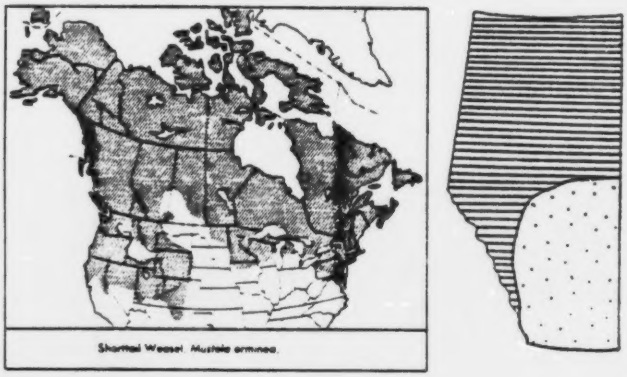
WEASEL - RANGE, TRACKS, DROPPINGS



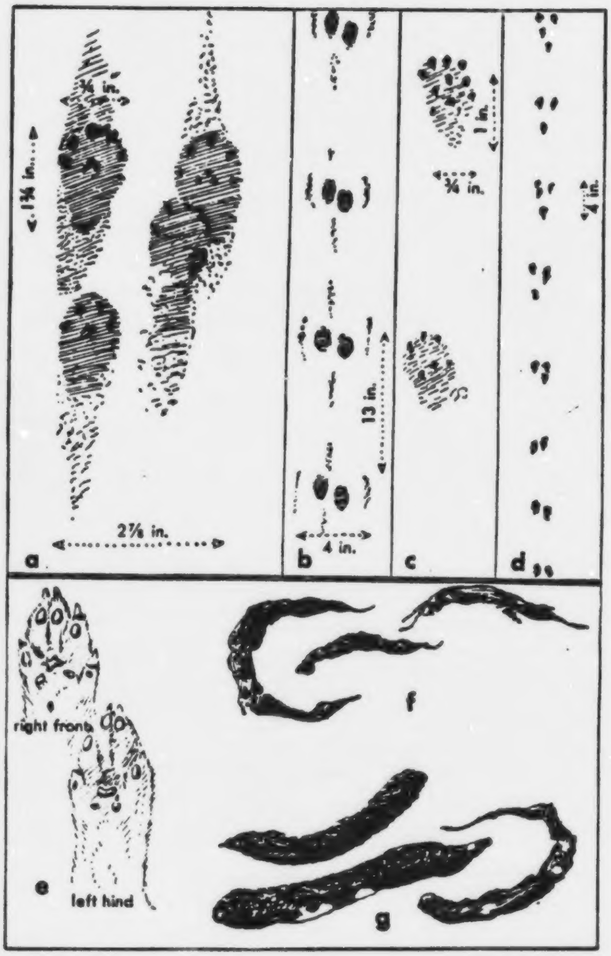
Least Weasel, Mustela rixosa.



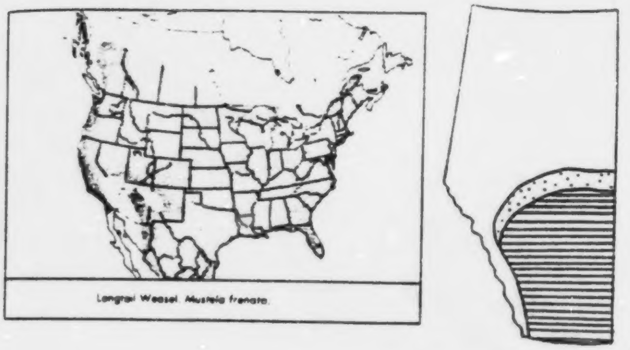
Weasel



Shorttail Weasel. Mustela erminea.



Weasel.



Longtail Weasel. Mustela frenata.

RANGE

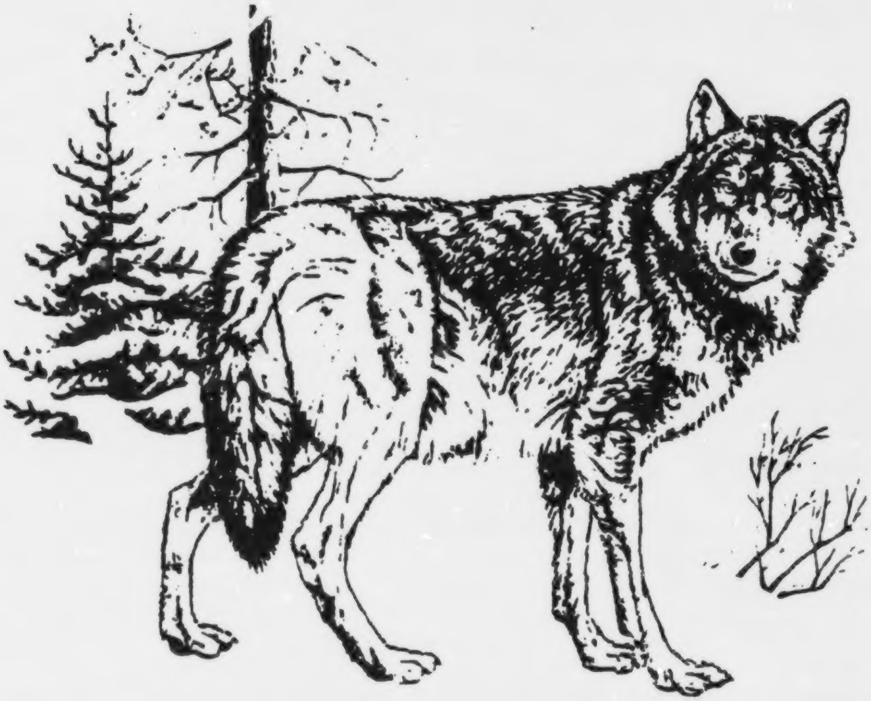
Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ⁙ Occasional ☐ Rare - Most of area non-existant

a. Tracks of long-tailed weasel, *Mustela frenata*, in wet snow. Leaps were 29 to 34 in.
b. Tracks of ermine in snow, carrying a lemming
c. Tracks of ermine, *Mustela e. richardsoni*, on sand

d. Tracks in snow of long-tailed weasel
e. Feet of weasel, about natural size
f. Droppings of *M. erminea*, about natural size
g. Droppings of *M. frenata*, about natural size

Biology of The Wolf



NAME

The scientific name for the wolf is (Canis lupus). It is also commonly known as the timber wolf or grey wolf.

CHARACTERISTICS

The timber wolf looks much like a large German shepherd or husky dog in appearence. They are about 55 - 66 inches in length, including the 11 - 14 inch tail. They stand about 27 inches at the shoulder and males can weigh up to 150 pounds; females are much smaller, weighing about 80 pounds. The legs are long with well padded feet and non retractile nails; the head is massive with large rounded ears, pale yellow, slanting eyes and a long powerful muzzle with well developed canine teeth. Sight, hearing and smell are keen. The tail is very bushy and is usually carried straight back when running. There is a wide range of colour in the fur which has very long guard hairs, but the three most distinct phases are white, grey and black with gradations in between.

REPRODUCTION AND NATURAL HISTORY

Females are capable of breeding at the age of 2 - 3 years. The breeding season is in February - March. In the normal pack structure, only one pair is allowed to mate, usually the lead male and female. A pair like this normally mate for life. If the pack is broken up by the loss of the leader, wolves will then breed indescriminatley. The gestation period is 8 weeks and the litters average 4 pups. These are reared in earthen dens having two entrances and usually located on south facing sandy slopes. The pups are weaned at 8 - 10 weeks. They may venture from the den at one month of age, but do not leave the immediate vicinity of the den until at least two months old. Regurgetated meat is provided to the young by the adults until they lose their milk teeth. The mated adults make doting parents; the male continues to hunt and bring food to the den until the female and young are able to join him. Often other members of the pack will baby sit the young to give the female a break. The entire family usually vacates the den by mid July, from then on, using rendezvous sites usually located near bogs or swamps. In the fall, the young of the year, their parents and some of the older wolves from previous litters rejoin to form the winter hunting pack. In captivity, wolves have lived up to 10 yrears; in the wild, 5 - 6 years is the usual age attained.

FOOD

In the winter, wolves prey mostly on available big game. What species is concentrated on depends largely on location, abundance and the hunting habits the wolves have acquired. Deer, caribou, moose, elk, big horn sheep, etc. are all taken. In the summer months, smaller animals are eaten more, such as beaver, mice, hares, birds, insects, fruit, grass, etc. Calves of the big game are also preyed on in spring and summer. When wild foods are scarce, wolves may kill domestic cattle, sheep or dogs. Wolves tend to gorge heavily at a meal and can also go for many days without feeding.

Wolves are less fond of carrion than coyotes. The main technique for hunting big game in winter is pack co-operation. Once an animal is scented, it is pursued or ambushed and surrounded. It is then worn down by repeated attacks until it can be overpowered.

HABITS

Wolves are sometimes called the ghosts of the forest because they are so shy and seldom observed. The wolf is a tireless traveller who earns his living by his feet. Wolves travel with a loping gait which eats up the miles, but can run at speeds of up to 28 mph over short distances.

Home ranges may be 40 - 100 square miles in size in winter, depending upon the abundance of food in the area and 15 - 30 square miles in summer. Wolves usually travel in a circuit around the home range, using regular trails including old roads, portages, game trails and along lake shores and streams. Urine scent is used to mark range boundaries and to transmit other information to neighboring wolves. Pack size may be up to 20 or 30 members, but 7 or 8 is the most common.

Wolves are very social and maintain a strict hierarchy system within the pack. Very often, an older (usually male) animal will be displaced as the leader of the pack or will lose out in a challenge with the present leader and will be forced to leave. These lone wolves usually haunt the pack, feeding on the scraps left at each kill. Howling is used to rally the pack for the hunt or to communicate in other ways. It is most frequent during the breeding season.

POPULATION

Wolves closely limit their own numbers due to the strict control on breeding imposed by the hierarchy system. Once the optimum density is reached in relation to the food supply in the area, there is no further increase. When food is scarce, increases are reduced by cessation of breeding or by high mortality among juveniles as they are not permitted to feed until the higher ranking members of the pack have fed. Occasionally, wolves do get out of balance with their prey, when some factor decimates the prey species. At these times, some control may be warrented to try to reestablish the balance more quickly than nature could on its own.

HABITAT

Wolves are highly adaptable and can exist in almost any habitat type, from tundra to plains to densly forested areas. In Alberta, they now prefer the boreal forest areas. They seem to frequent rough, hilly terrain with many lookout vantage points. They are sometimes found along the fringe areas of settlements where some problems occur with domestic stock, but usually, they stay well away from human habitation.

ECONOMIC VALUE

The fur from wolves is generally too long and heavy to be used for coat making, but it is extensively used for parka trim and rugs. Wolves also help to control rodent and game populations from becoming overabundant and damaging their habitat.

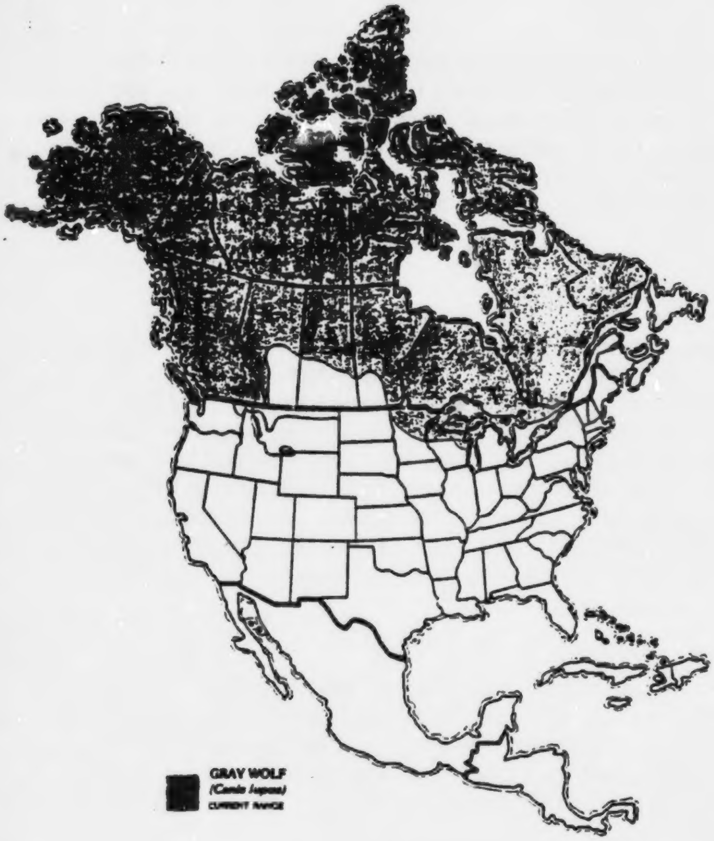
In Alberta, wolves account for approximately 1% of the annual fur revenues to the province.

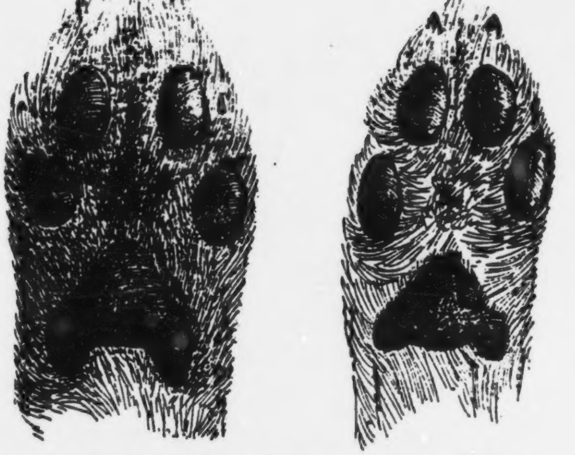
DISTRIBUTION AND STATUS

Wolves were once found throughout North America from Mexico to the Arctic. They have now been largely exterminated from the United States and the settled areas of Canada. They are still found across northern Canada, and Alaska.

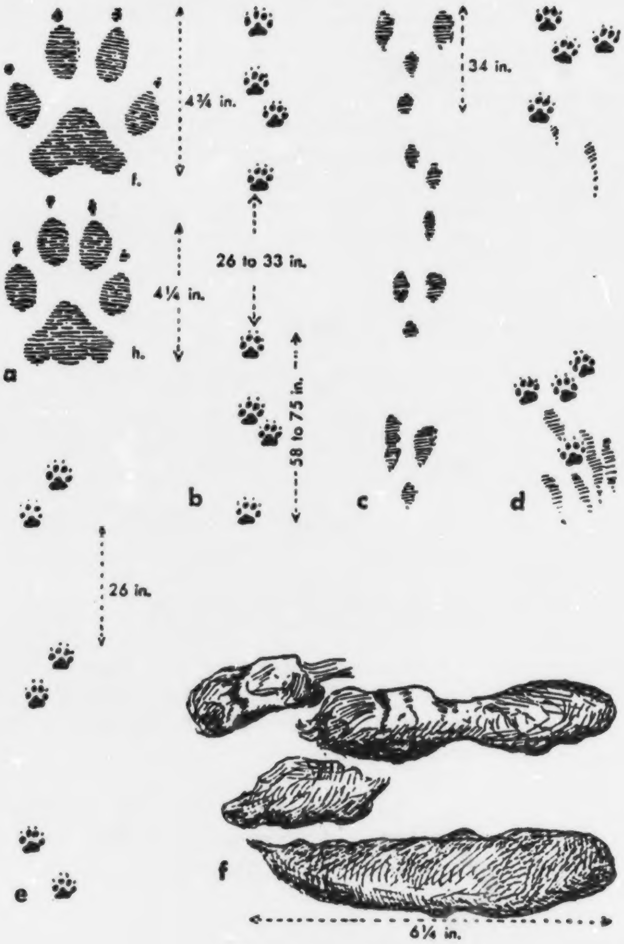
In Alberta, they are mainly found in the forested northern and western regions. At present, their status is abundant to overabundant in some areas to adequate in others.

WOLF - RANGE, TRACKS, DROPPINGS


GRAY WOLF
(Canis lupus)
CURRENT RANGE

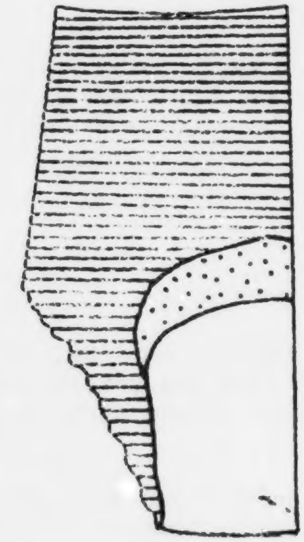


Right front and hind feet of male 2/5 size


4¾ in.
f.
26 to 33 in.
4¼ in.
h.
a
58 to 75 in.
b
34 in.
c
d
26 in.
e
f
6¼ in.

Wolf tracks and droppings.

a. Tracks in mud
b. Easy gallop.
c. Irregular run.
d. Faster gallop.
e. Slow trot.
f. Droppings

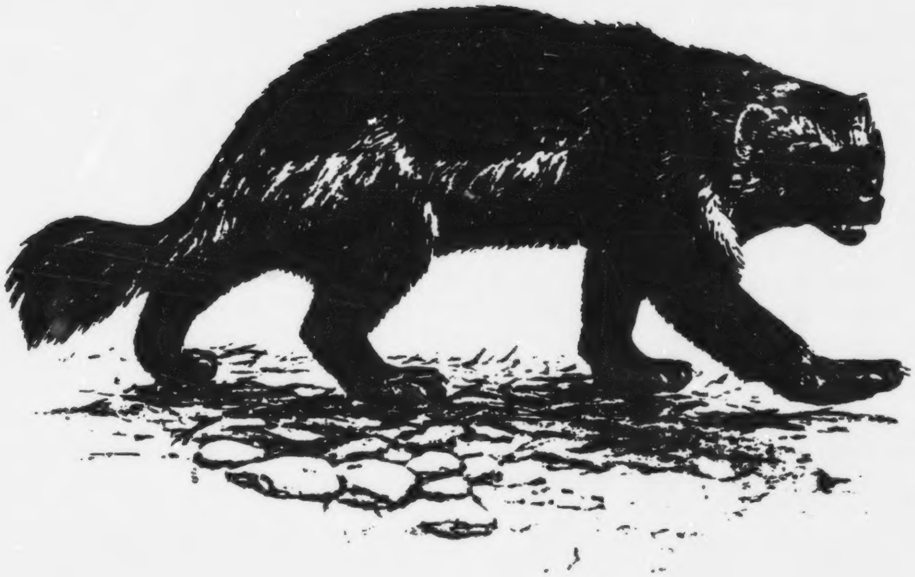


RANGE

Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ▨ Occasional ☐ Rare - Most of area non existant

Biology of The **WOLVERINE**



NAME AND HISTORY-

The wolverine is the largest member of the weasel family or (Mustelidae). Its scientific name is (Gulo luscus). It is also commonly known as the glutton, skunk-bear or carcajou.

The wolverine is a rare and legendary animal of the north. It is both respected and hated by trappers; hated for its trap robbing and cabin wrecking habits, yet respected for its cunning and toughness. Its nature has always been shrouded in mystery and it is difficult at times to separate the facts from fiction. All this makes the wolverine a very intriguing animal.

CHARACTERISTICS

The wolverine is a powerfully built, long-haired mustelid, somewhat resembling a small short-legged bear, and with markings reminiscent of those of a skunk. The back is arched, and the tail is bushy; the feet are large and well furred, with long, non-retractile claws.

Males are 36 - 44 inches long, including an 8 - 9 inch tail. They stand 12 - 14 inches at the shoulder and weigh 25 - 40 or more pounds. Females are about 1/4 smaller.

Because of its size, stocky form and long coat, the wolverine cannot be easily mistaken for any other mammal.

The head is broad and short-snouted with small, rounded ears, small eyes, massive teeth and powerful jaws. The neck is short and powerfully muscled as are the shoulders. The sense of smell and hearing are good but sight is poor.

The pelage is long, with coarse guard hairs and thick underfur when prime. The colour and texture varies with the individual. Usually, they are dark brown above with pale lateral stripes running from shoulders to rump, merging at the rump and extending along the top of the tail. In some individuals, the contrast is very distinct while in others it is faint.

The under parts are dark, often with irregular white or orange markings at the throat and a bright orange patch on the belly, indicating the location of a gland.

The wolverine walks in a flat footed manner; the hind feet, in fact, resemble the feet of a man. It travels in several gaits but a sort of run with long, bounding strides is the most common. It is not a particularly fast runner but can travel tirelessly over long distances.

REPRODUCTION AND NATURAL HISTORY

Both sexes reach sexual maturity during their second summer. Mating is said to take place from April to October with the male being polygamous. A delayed implantation occurs until January, with a gestation period of 60 days. The young are born in late March or early April. One to four young are born in dens located under protective rock slides, natural caves, under the roots of trees or windfalls.

The young are covered with fine white hair. The female gives the young extensive care for as long as a year; after which, she drives them from her territory.

FOOD

Wolverines mainly eat the flesh of mammals or birds. Because of the limitations of their size and speed, being too large to subsist well on small game and also too small to effectively kill large game regularly and being too slow to pursue swift animals, they often resort to scavenging carrion.Often, they subsist almost entirely on winter killed animals or the kills of other predators. This habit also attracts them to traplines where trapped or dead animals are more available. The wolverine will hunt and kill for itself wherever the opportunity presents itself and they are tireless and persistent in their hunting activities. They will take a wide variety of foods, including hares, mice, lemmings, ground squirrels, chipmunks, marmots and beaver. Berries are often eaten in late fall. When hard pressed for food, the wolverine will attempt to kill big game animals and there are authentic records of attacks upon mountain goats, moose, deer and caribou.

The wolverine is a courageous animal which is respected and avoided by other predators; even the cougar and grizzly bear have been known to abandon a kill on the approach of a wolverine. Wolverines will often urinate on carcases, fouling it so that no other animal will eat it.

HABITS

Little is known about the habits of the woloverine. Due to its poor eyesight, it has been noted to come within 50 - 60 yards of man before becoming alarmed. If not absolutely sure of what lies ahead, it will sit on its haunches and shade its eyes with its forepaws, just as a human would do in scrutinizing a dim or distant object.

Wolverines avoid water or even heavy rain if possible, but will cross small water obstacles when necessary.

Its habit of following traplines, robbing bait, killing and eating trapped animals while avoiding capture has caused trappers problems.

Wolverines are most active at night but will travel in daylight, expecially in the winter. They are normally solitary and very intolerant of each other except during the breeding season. They have large territories and will travel great distances at times.

POPULATION

Wolverines are never abundant but are sparsly scattered over extensive areas. As a result, they seem to maintain a stable but low population most of the time. They need wilderness areas where they can avoid conflicts with man.

HABITAT

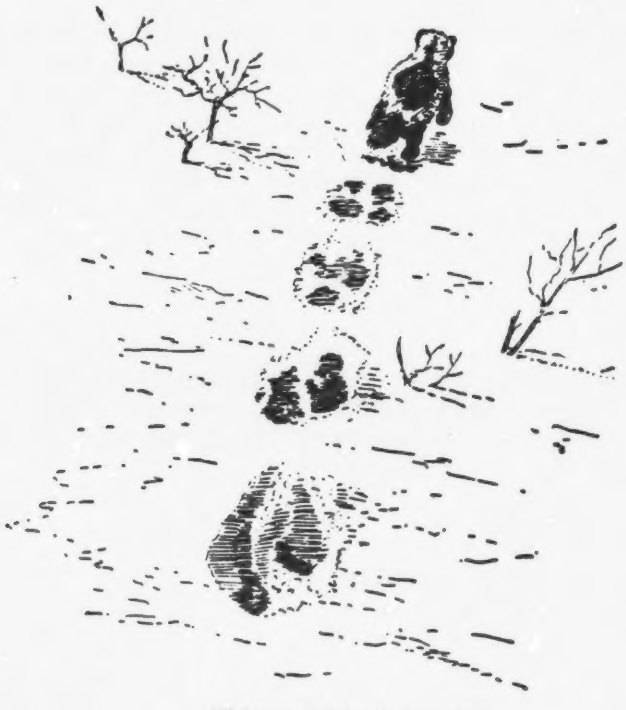
The wolverine is a creature of the northern wilderness, frequenting heavily wooded, broken, rugged and mountainous areas. They are also found on the barrens. In the winter, it often migrates high in the subalpine forests, foraging about timberline and on talus slopes.

ECONOMIC VALUE

The fur of the wolverine is extremely durable, but is generally too long and with too heavy a leather to be used for coats. Most are sold for parka trim to the Inuit of northern Canada, who greatly esteem it because it does not mat and frost up as much as most furs. The hoar frost can be easily brushed out of the fur. Distinctively coloured individuals are in high demand for rugs or for mounting. Because of their rarity, they generally command a fairly high price.

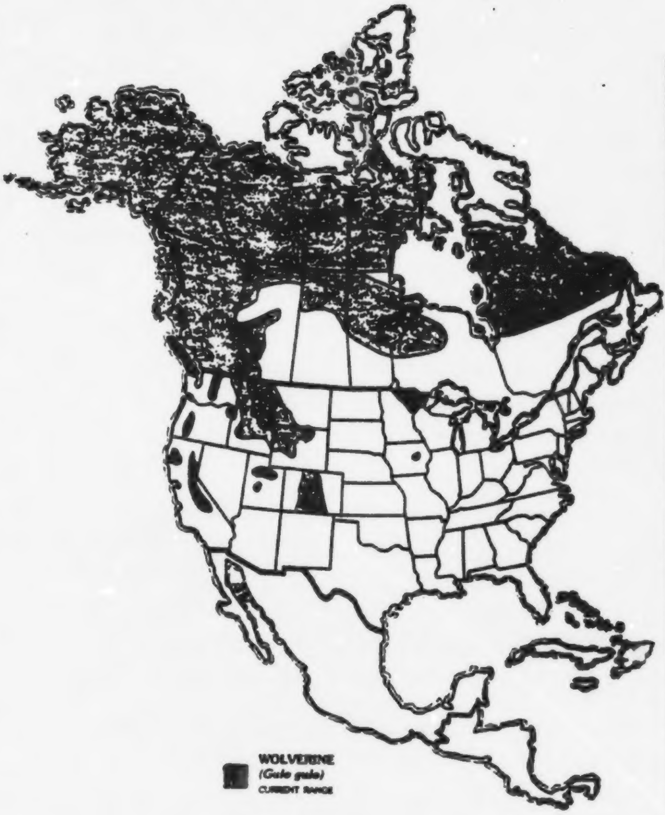
DISTRIBUTION AND STATUS

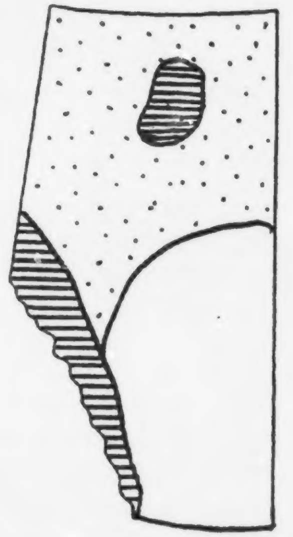
Wolverine occur throughout the northern Boreal forest regions of Canada and Alaska, as well as on the barren lands of the Arctic. In Alberta, they are the most common in the western mountain regions, but also occur throughout the northern forested area of the province. Wolverine are comparatively scarce and as a result, are protected by a quota in Alberta.



Wolverine running in deep snow.

WOLVERINE - RANGE, TRACKS, DROPPINGS

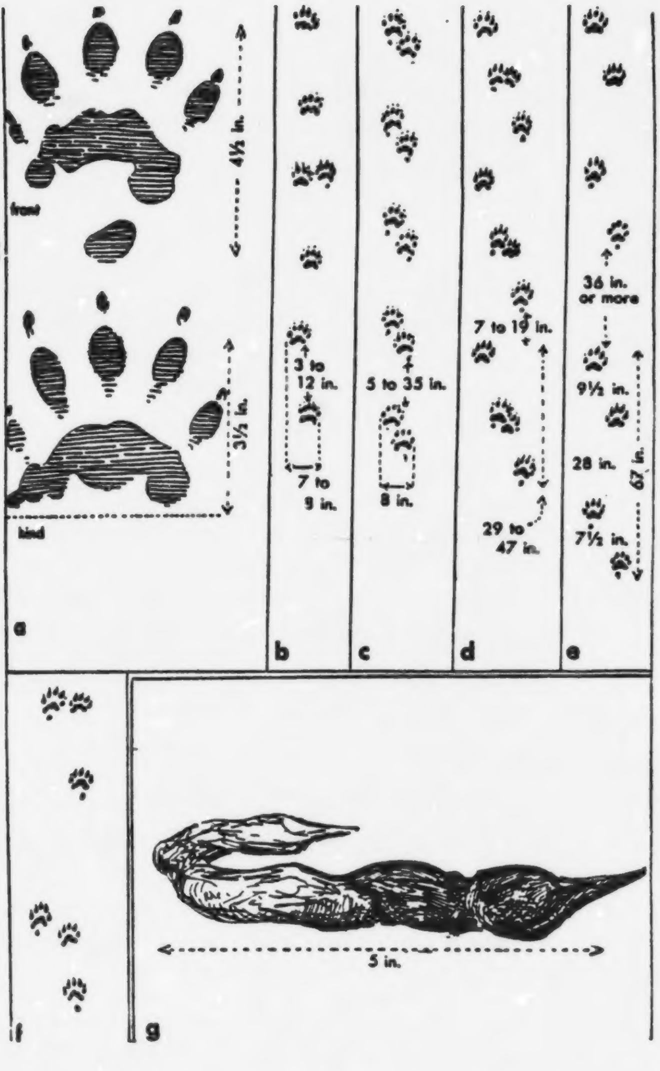

WOLVERINE
(Gulo gulo)
CURRENT RANGE



RANGE

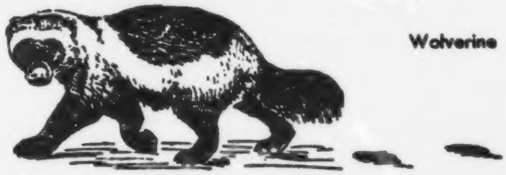
Map indicates the general ranges this species inhabits. Abundance of the species may vary within the range.

▤ Common ░ Occasional ☐ Rare - Most of area non-existant


front
4½ in.
hind
3½ in.
3 to 12 in.
7 to 9 in.
5 to 35 in.
8 in.
7 to 19 in.
29 to 47 in.
36 in. or more
9½ in.
28 in.
67 in.
7½ in.
5 in.
a
b
c
d
e
f
g

Wolverine tracks and scat

- a. Typical tracks, which show all five toes.
- b. Walking or trotting gait.
- c. A little faster gait.
- d. An easy lope.
- e. A gallop.
- f. Track of wolverine with crippled left hind foot. (Note that there are only 3 footprints, signifying that it must be holding up the injured foot.)
- g. Typical scat.



Wolverine

Common Diseases and Parasites of Furbearing Mammals That Can Infect Man

Trappers should know about the danger of infection from contact with wild mammals. The presence of disease and parasites is normal in any population of wild animals. If you learn to recognize the signs that indicate this presence, you can cut down on the risk of getting infected.

Rabies

Rabies is caused by a virus that affects the nervous system of mammals. Coloured foxes and skunks are the most frequently infected animals. Raccoons, wolves, coyotes, woodchucks, squirrels, muskrats, lynx, bats, bear, deer, fisher and domestic animals can catch and transmit the disease.

Rabies is transmitted in the saliva of an infected animal. The disease can be transmitted to man by means of a bite from an infected animal, or by entering man's body through a cut or scrape on the skin, or by coming in contact with the eyes, nose or mouth. The virus may be present in the animal's saliva for as long as five days before symptoms become visible. If you suspect a wild animal is rabid, kill it immediately. The best method is to shoot the animal through the body, as the brain is required for positive diagnosis of the disease.

If you are bitten or scratched by an animal suspected or rabies, or if you come in contact with such an animal's saliva, immediately wash the affected area with soap or detergent followed by another washing in 40% to 70% alcohol. Contact a doctor immediately.

Rabies affects wild animals in one of two ways: the furious form and the dumb form

The furious form is the most common among wildlife population Many normally placid species become irritable and aggressive, wander much further than normal from their home territory, and are likely to attack moving objects. They lose their fear of man and dogs This stage usually lasts for three or four days. The animal usually goes into convulsions which end in paralysis and death.

In the dumb form of rabies, animals become partly paralyzed in the lower jaw resulting in a drool of saliva from the animal's mouth This stage is followed by general paralysis and death. Raccoons are the most common furbearer to exhibit the dumb form of rabies

Internal White Spots

Internal White Spots are symptoms of three diseases found in furbearing mammals: tularemia, pseudotuberculosis, listeriosis. All three are highly infectious and dangerous to man. These diseases have been recorded in beaver, muskrat, and more than 80 other species of mammals. The liver and spleen enlarge and become covered with white spots The white spots are areas of dead cells killed by bacterial poison. The kidneys, lymph nodes in the back of the abdominal cavity, lungs and stomach may also show signs of spotting

The bacteria of these diseases can be transmitted to man in several ways:

1) Through direct contact with fur. internal organs. body bluids. or discharges of infected animals. The bacteria usually enter man through a cut or scratch on the skin. although in some cases they may penetrate unbroken skin.
2) Through drinking water or ice that has been contaminated with faeces of diseased animals:
3) Through inhaling dust that has been contaminated with the faeces of diseased animals:
4) Through eating meat that has not been cooked sufficiently to kill the bacteria:

When man is infected with any one of these three diseases. the symptoms are generally those associated with flu — high temperature. chills. headaches. sweating. nausea. vomiting. diarrhea. vague aches and discomfort. In mild cases. the infected person may ignore the symptoms. feeling not well but not very ill.

In addition to the aforementioned symptoms. the diseases may be accompanied by:

1) A small swollen area where the infection has entered. usually on hands. arms. face or neck:
2) An inflammation of membranes around the eye.
3) A general enlargement of the lymph nodes.

Tapeworms

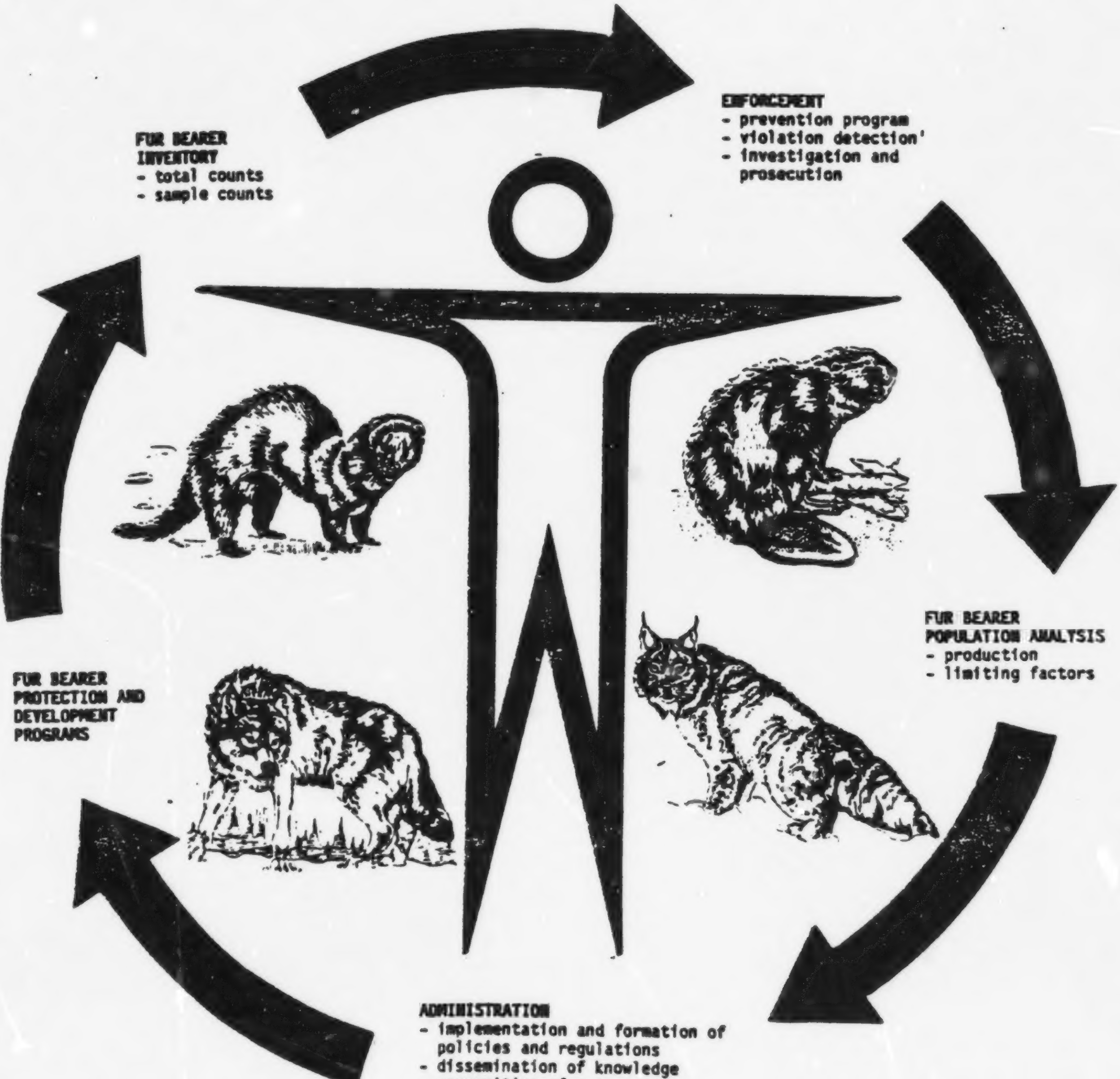
Tapeworms can infect either herbivores or carnivores mammals. Only one variety of tapeworm can infect man. This species usually has a wolf-moose cycle. but man can become the intermediate host. Man is infected only by the tapeworm eggs. which are usually received from the faeces of dogs. Never handle faeces of dogs. or any other carnivore. without wearing gloves which can be disinfected.

General Precautions

Most commonly. the disease organism or parasite enters through open cuts. although some can penetrate through unbroken skin. If you handle animals. skin them. or work with fresh pelts. follow these simple rules:

1) Cover all open cuts on hands and exposed skin before starting to work.
2) Wear disposable rubber gloves.
3) After work. wash thoroughly in warm. soapy water.

Furbearer Management



FUR BEARER INVENTORY
- total counts
- sample counts

ENFORCEMENT
- prevention program
- violation detection'
- investigation and prosecution

FUR BEARER POPULATION ANALYSIS
- production
- limiting factors

ADMINISTRATION
- implementation and formation of policies and regulations
- dissemination of knowledge
- recognition of resource use, requirements

FUR BEARER PROTECTION AND DEVELOPMENT PROGRAMS

Lesson Objectives

To provide the student with:

1. Reasons why fur bearer management is necessary in society at both a provincial and local level, and methods of accomplishing this.

2. Provincial regulations governing the trapping of fur bearing animals in Alberta and the reasons for their existence.

Furbearer Management and Trapping

GENERAL PHILOSOPHY

Many people take it for granted that there are still vast areas in which the landscape remains as nature made it, undisturbed by the influences of human activity. This is not true. Even in areas where there is little or no human presence, the by-products of modern society are having telling effects. Acid rain and other forms of pollution, the destruction of wild terrain as resources are removed and human habitation encroaches on wildlife habitat, have made it necessary to give serious consideration to the problems of maintaining an environment in which people and other living things can live. A "hands-off" policy by which plant and animal resources could be left to re-establish themselves is unrealistic in most areas. A growing human population cannot easily afford to leave vast tracts of land unused. Sound management practices are needed that will permit the non-human forms of life to thrive in close association with the human, and with the effects of human activity. The goal of wise management is to preserve the basic resources while making use of the surplus available for harvest.

Fur bearers are a part of the resources which nature has provided. Unlike the fossil fuels, often used to make synthetic furs, fur bearers are a renewable resource that will never be exhausted, as long as the basic requirements for life and reproduction are conserved. If this resource is to remain available for the use of future generations, the management decisions made now must be based on practical considerations rather than on sudden whims or flights of fancy.

To declare trapping illegal because some think it cruel would not be a guarantee for the survival of any particular species, or the survival of individual animals. Wildlife cannot be stockpiled but, like human beings, is subject to the limitations of what is called "carrying capacity". Most animals produce more offspring than their habitat can support. When the surplus is not harvested, it must be removed by some other means - starvation, disease or predation. Muskrats, for example, often lose 70 percent of their population from one breeding season to the next, regardless of trapping. Animals simply do not die of old age, but rather succum to other factors.

Neither would a cessation of trapping preserve any animal from the experience of pain and death. Left to itself, nature will take its toll of the population in ways that may cause suffering that is far more acute and prolonged than that caused by the methods recommended in this manual. A responsible trapper checks his traps regularly and, where possible, uses quick-killing or drowning sets that ensure a death that is relatively painless. The charges of inhumanity so often brought against trappers as a whole are founded on the acts of some irresponsible individuals.

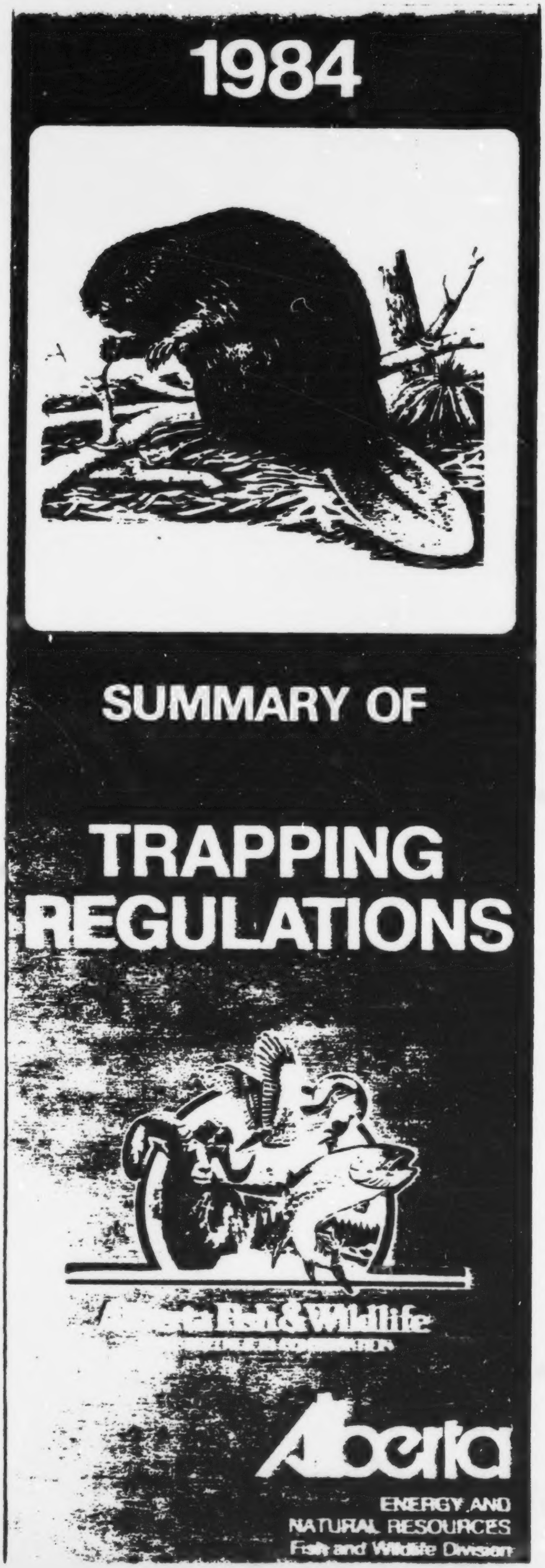
There are those who argue that the death of an animal by natural causes is acceptable, but that human beings have no right to interfere with nature's course. This is not only to suggest that man has no place in nature and to forget that all members of society contribute directly or indirectly to the deaths of animals; it is also to ignore the benefits which well-managed trapping can bring to wildlife populations as a whole, and to those members who survive to thrive in better habitat and to remain healthy and proficient breeders.

The scientific technniques used by modern fur managers ensures the survival of furbearers in good numbers by removing the yearly surplus, and helps to prevent the damage that can be caused when disease ravages a particular animal population. In addition, it prevents an overabundance of one species from damaging habitat that supports other types of wildlife.

There are many examples which might be cited to illustrate the ways in which an animal population, if unchecked, can damage habitat and cause losses. Beaver flood agricultural land, woodland habitat and roadways, and in some cases, have a negative effect on fish communities. Muskrat cause extensive damage to pond banks, dikes and other structures. Other furbearers prey on livestock and domestic animals. Some species carry and spread diseases like rabies and tularemia, as well as parasites and other less-lethal organisms. Well-planned harvesting can reduce both the threat to wildlife communities and the damage to property caused by these activities.

In addition to resource-related reasons for trapping, there are recreational and economic reasons. Many thousands of people enjoy the outdoor experience provided by trapping. The fur industry injects a significant amount of money into the Province's economy and helps offset the Province's balance of payments. Also, furbearer meat is an important component of the trappers' diet.

While there will always be room for those who object to the harvesting of wildlife, it is clear that sound management practices, coupled with humane, efficient and selective trapping, is a good means of ensuring that wildlife will continue to exist, and to provide employment, products and pleasure to people now and in the future.



1984

SUMMARY OF

TRAPPING REGULATIONS

ta Fish&Wildlife

[illegible]

Alberta

ENERGY AND
NATURAL RESOURCES
Fish and Wildlife Division

CANADIAN TRAPPERS MANUAL

The Canadian Trappers manual contains comprehensive information on all aspects of trapping and handling furs. You may purchase your copy from the Canadian Trappers Federation, Box 140, North Bay, Ontario, P1B 8G8.

HUMANE TRAPPING

Trappers must make every effort possible to minimize or eliminate the suffering of animals trapped. Trappers should also make every attempt to minimize the capture of unwanted species by using the most selective trapping techniques available.

TRAPPER EDUCATION 1984 - 1985

Alberta Trapper Education courses will be offered at various locations again this year. You are encouraged to participate in these programs when they are held in your area. Program content includes humane trapping techniques, fur handling, and information on marketing and trapping regulations. Expert fur handlers will be in attendance to provide information on fur quality and grading.

Information on program locations may be obtained from your local Fish and Wildlife office, Alberta Vocational Centre at Lac La Biche, Alberta Trappers' Association and the office of the Trapper Services Coordinator, Fish and Wildlife Division, Head Office, Edmonton.

NOTE: This pamphlet is neither a legal document nor a complete dossier of the current Wild Fur Industry Regulations. It is an abbreviated guide, published to assist the trapper to interpret the rules. If required, specific details of the regulations may be obtained from the nearest Fish &Wildlife Office.

*Refer to the pocket page at the back of this manual for the current Summary of Trapping Regulations.

PROVINCIAL REGULATIONS

Introduction

Regulations governing the use of our fur resources on a provincial wide basis is both necessary and beneficial. Regulations are reviewed annually and the necessary changes are made in order to utilize this resource for the benefit of all Albertans. Regulations thus accomplish the following main goals:

1. They conserve the resource by preventing over harvesting
2. They permit reasonable use of the resource and allow a fair opportunity for people to share in the harvest of the surplus crop
3. They protect the users (trappers) interests
4. They minimize waste
5. They help ensure animals are taken in a humane manner
6. They protect people from property damage and diseases by controlling furbearer populations within desirable limits
7. They lessen the chances of catching non-target animals

The legislation affecting trapping in Alberta is contained in the Wildlife Act and the Wild Fur Industry Regulations. Each year a Summary of Trapping Regulations is published by the Fish and Wildlife Branch and is available through their offices (refer to pamphlet). The summary is an overview of the information deemed necessary for trappers, however, it is not a legal document. The Summary of the trapping Regulations covers the following details:

- Licencing and Permit requirements
- Prohibitions
- Trapping Management Zones
- Seasons and Quotas
- New changes from previous years
- Other
  - Fur Tax
  - Trapper Compensation Review plan
  - Accidental trapping of unauthorized wildlife
  - Exporting
  - Fish and Wildlife Division local office telephone numbers
  - Information on Trapper Education programs

Important Changes for the 1984/85 Trapping Season

	Reasons For:
1. Zone Boundary Changes Several Fur Management boundaries have changed. Be sure to check for changes in your area before trapping.	Changes are minor and are necessary to correspond with Wildlife Unit boundary changes. NOTE: Changes in Zones 1,3,4,6,7,8
2. Season Dates Season closure dates have changed in some zones for Red and Arctic Fox, Mink, Weasel and Red Squirrel (See Part 1)	Season dates were aligned so that similar species open and close at the same time. Should decrease the incidents of trapping animals accidentally. The squirrel seasons throughout the province are more uniform and close at the same time as most species.
3. 72 Hour Mandatory Trap Check It is now mandatory for every Resident and Registered Trapper, unless circumstances beyond his control prevent him from doing so, to examine all traps he has set at least once every 72 hours. This does not apply if a trap or snare is one which is defined as a killing device.	Consistent with the intent of the Trappers Code of Ethics. Should result in decreasing the stress and physical damage an animal can cause itself when held for prolonged periods. Consistent with Alberta Trappers Association demands and supports Humane Trapping groups' concerns.
A killing device is defined as: (a) a device designed to trap and kill a fur-bearing animal or fur-bearing carnivore by the action of a trap. (b) a snare set to tighten on the neck of a fur-bearing animal or fur-bearing carnivore in order to kill it, where the energy to tighten the snare is provided by the fur-bearing animal or the fur-bearing carnivore, or (c) a device that is set so as to restrain or kill a fur-bearing animal or fur-bearing carnivore, under water.	Provides a distinction for the trapper as to which devices will be considered killing or holding devices.

Provincial Regulations - (Continued)

Licencing and Permits

Reasons for licencing & permits in general.

Licences or permits are annual documents which the user must acquire before he can begin to utilize the resource. These documents province for the following:

1. Provides the manager with the necessary information to measure the extent of the use by people. It serves thus as a document that confers authority to be involved in a certain privilege.

2. Provides the manager with control over the selling and distribution of furs to licenced fur dealers etc. This minimizes trafficing in illegal furs.

3. Licences provide statistical information on individual fur harvest and can pinpoint the location where harvest occured.

4. Licence fees help offset the cost of managing the resource.

5. Licences can serve as a means of assigning quotas.

In Alberta, residents are permitted to trap under the authority of a Certificate of Registration of a Trapping Area, or a Resident Trappers Licence, Indian or Metis Trapper Licence or a Wildlife Damage Permit. The following information will help you understand these documents of authority.

REGISTERED TRAPPING AREAS	Reasons For
A registered trapping area is a parcel of Crown land described on the Certificate of Registration of a Trapping Area used for the purpose of hunting trapping and killing of fur bearing animals and fur bearing carnivores.	By giving one individual trapper exclusive trapping rights over a specified area, enables the trapper to manage and conserve the fur resource on his area and thus to ensure a continuing supply of fur-bearing animals.
Any qualified person may make application for a vacant trapping area at any district Fish & Wildlife Office. A successful applicant will receive a Certificate of Registration of a Trapping Area. This certificate gives the holder the authority to hunt and trap fur-bearing animals and fur bearing carnivores on the Crown lands described on the certificate.	This system is possible on Crown lands because the provincial government controls land allocation and use.

Provincial Regulations (Continued)

REGISTERED TRAPPING AREAS (continued)	Reasons For:
More than one certificate may be issued for a trapping area provided that the second and subsequent applicants obtain the written consent of the senior certificate holder. The holder of a certificate of registration may apply for a renewal of that certificate on or before September 30th provided that the application for renewal is accompanied by:	Written permission for the junior licence holder - ensures senior licence holder has knowledge of and control over trapping his assigned area (he must be aware of maximum harvest when other trappers are permitted to trap).
a) a sworn declaration showing numbers and species of fur-bearing animals and fur-bearing carnivores taken on the trapping area during the previous year, and	Provides manager and trapper with necessary information on furbearing population trends and harvest so that management and conservation can be employed.
b) in the case of the second or subsequent certificate holder, the written permission of the first certificate holder.	Ensures that the first licence holder has knowledge of and control over users of his area.
RESIDENT TRAPPING LICENCES	
A resident trapper's license is available for trapping on lands not covered by a registered trapping area.	The provincial government cannot impose the registered trapline system on privately owned land, but the fur resource belongs to the province. Provides opportunity for landowner (or others he allows), to use the fur resource on his specific property.
Any resident 14 years of age or over may obtain a resident trapper's license. The holder of such a licence may trap those lands: a) he owns, leases or occupies and	

Provincial Regulations - (Continued)

	Reasons For:
b) those for which he obtains written permission, in form WA 19A, to trap from the owner, lessee or occupant. Such written permission will include: i) the name and address of the owner, lessee or occupant, ii) the legal description of the lands, iii) the number of the authorized trapper's Resident Trapper's Licence, iv) the date the authority was signed, v) the address of the authorized trapper and vi) the signature of the owner, lessee or occupant.	Requirement of written Permission Form assures that the land owner has knowledge of who and when trapping occurs on his land. The Resident licence can provide recreational opportunity for trapping. Resident licences can lessen the incidents of farmer-animal conflicts.
A resident trapper must, while engaged in trapping, carry on his person his Resident Trapper's Licence together with the relevant PERMISSION TO TRAP forms and produce them at the request of an officer.	So that enforcement officers can distinguish between trappers exercising their legal rights and unauthorized person. So that these offenders can be apprehended in the field and thus protects the lawful trapper and the resource.
The holder of a Resident Trappers licence may allow his child under sixteen years of age to trap fur-bearing animals and fur-bearing carnivors on land which he may trap under the authority of that licence.	This allows the Resident trapper to have his dependents participate in trapping activities on his trapping area without the need of obtaining a separate licence and permission forms or incur costs involved.
(NOTE: Otter may not be trapped under the authority of a Resident Trapper's Licence.)	Otter are rare in most areas that are trapped by resident licence holders. This is a measure to help protect and conserve this species.

Provincial Regulations - (Continued)

INDIAN TRAPPER'S LICENCE

	Reasons For:
This licence authorizes Treaty Indians to hunt and trap fur-bearing animals and fur-bearing carnivores within the boundaries of the Indian reserve on which they reside, and may be obtained from the Band Administration Office.	Allows for fair and equitable distribution of trapping to Reserve Residents. Is required by Treaty Indians to sell furs.
METIS TRAPPER'S LICENCE	
This licence authorizes Metis Colony members to hunt and trap fur-bearing animals and fur-bearing carnivores within the boundaries of the Metis Colony in which they live, and may be obtained from the Metis Colony Supervisor. Only a member of a Metis Settlement Association formed under the Metis Betterment Act, shall hunt or trap wildlife upon any Metis Colony.	Designed to give Metis Settlement members exclusive right to trap lands allocated to the settlement while still providing provincial managers with information and controls to manage the resource. (Licences are free). Licences are necessary to sell and possess furs.
Wildlife Damage Permit	This document permits the holder to remove specific animals which are causing private or public property damage. It may, at times, allow the holder to use devices that would not normally be permitted.

Provincial Regulations - (Continued)

LICENCE AND PERMIT FEES (Residents Only)	Reasons For:
Resident Trapper's Licence $10.00 Certificate of Registraion of a Trapping Area . . . . $10.00 Trapping Area Renewal. . . $10.00 Indian Trapper's Licence . Free Metis Trapper's Licence. . Free Wildlife Damage Permit . . Free	A means of acquiring revenue from a natural resource and provides statistical information.
EXPORTING	
It is unlawful to export in any way any wildlife including fur-bearing carnivores or fur-bearing animals or parts thereof beyond the boundaries of Alberta without first obtaining a Provincial Export Permit. These permits are issued free of charge and may be obtained from any District Fish and Wildlife Office.	The movement of furs and all wildlife within Canada is controlled by an act of the Federal Government. This is necessary to ensure that a legal, consistant and orderly flow of these resources from one province to another or to another country occurs. This legislation is enforced by Fish and Wildlife as well as R.C.M.P. agencies.
Persons exporting any Wolf, Lynx, Bobcat or Otter out of Canada must obtain the above Provincial Export Permit as well as an export permit in accordance with the Convention on International Trade in Endangered Species (CITES). Applications for CITES Permits may be obtained at any District Fish and Wildlife Office. (NOTE: Export Permits for fur-bearing animals and fur-bearing carnivores will not be issued until the tax is paid.)	To prevent or control illegal trafficing of furs by persons who may try to bypass provincial regulations. To protect and conserve endangered species around the world (ie:) these animals may not be endangered here but may be in other countries or are look-alikes to Canadian species. This permit provides a means to distinguish the country of origin of the fur. eg: Wolf, otter, lynx, bobcat

Provincial Regulations - (Continued)

Prohibitions	Reasons For:
It is unlawful to:	
1. Engage in or assist in the trapping or hunting of any fur-bearing animal or fur-bearing carnivor unless a person is:	Sets out in written form those practices which society wishes to discourage or eliminate - these act as a guide to the trapper and public as to what practices to avoid - the prohibitions are designed to protect the rights of the trapper and the resource.
a) the holder of a valid trapping licence,	Gives the holder of the licence authority to trap.
b) the spouse or child (under 18 years of age) of a registered trapper or	Exempts the trapper's immediate dependents from the expense of a licence, recognizes that their trapping activities are under the control of the licence holder, permits the trapper to train his children or have them assist him as a helper.
c) the child (under 16 years of age) of the holder of a resident trapper's licence.	
2. Set snares to take or capture fur-bearing animals or fur-bearing carnivores unless:	Snares are permitted on Crown land because there is little danger to domestic animals.
a) a person is the holder of a certificate of registration of a trapping area, or	
b) a person is the holder of a resident trapper's licence and sets out snares for beaver, snowshoe hares, squirrels, or weasels (N.B. Resident trappers using snares to take or capture beaver must place the snare in such a way that the snare loop is submerged beneath the ice or water level.)	Snares are not permitted on private land due to the danger to domestic animals. Snares may be used for certain small species of animals where their use would pose no problem.

Provincial Regulations - (Continued)

Prohibitions (continued)	Reasons For:
c) a person is a resident taking snowshoe hares for himself or his family on lands to which he has right of access. (Note: Snare wire larger than 20 guage may not be used and the snare loop must not exceed 13 cm in diameter).	To allow any resident the right to take hares for food on land he has access to. The restrictions ensure the snares are not large or strong enough to pose a threat to domestic animals or other fur-bearers.
3. Allow the pelt of any fur-bearing animal or fur-bearing carnivore to be wasted, destroyed or spoiled, except for skunks or coyotes killed by a person on his own land.	To prevent needless waste of valuable furs except for those animals which may cause damage to the landowner.
4. Break open or destroy any beaver dam or lodge.	To stop the destruction of entire beaver colonies as this is recognized as being destructive to the conservation of beaver and other species. Can result in inhumane treatment of beaver and other species. (NOTE: see provision as provided by the Game Hunting Regulations.)
5. Be engaged in or involved in trapping while not carrying on your person your valid trappers licence or your valid identification card. (Note: Resident trappers must also carry the relevant Permission to Trap Form (WA 19A) while engaged in trapping on any land for which permission is required).	So that enforcement officers can distinguish between trappers exercising their legal rights and unauthorized persons. So that these offenders can be apprehended in the field and thus protects the lawful trapper and the resource.

Provincial Regulations - (Continued)

Prohibitions (Continued)	Reasons For:
6. Attempt to purchase a Resident Trapper's Licence unless a person is an Alberta Resident over 14 years of age.	Fourteen is the minimum legal age for a person to obtain a licence under the Wildlife Act; the age requirement ensures that the individual is of sufficient age to understand the legal requirements in trapping.
7. Hunt fur-bearing animals or fur-bearing carnivores at a time and place that it is legal to hunt big game unless that person is visibly clothed in a long sleeved outer garment and head dress completely scarlet or blaze orange.	To prevent hunting accidents due to improper identification (safety precaution).
8. Export outside the boundaries of Alberta the skin or pelt of a fur-bearing animal or fur-bearing carnivore or part thereof, without having first obtained an export permit and paid the appropriate fur tax (See sections under Exporting).	Facilitates the orderly transfer of fur out of the province and assures the royalty is collected. Also provides information as to where the furs originate from. Requirement to meet Federal Legislation. Also Prohibition under the Wildlife Act.
9. Carry any firearm on an off-highway vehicle between 12:00 midnight and 12:00 noon during a time that the season is open for the hunting of big game in any wildlife management unit that places restrictions on the use of off-highway vehicles (OHV's) for hunting during the above hours. (NOTE: This does not prevent a person who holds a Certificate of Registration of a Trapping Area from carrying a firearm on an off-highway vehicle while trapping on his trapping area.)	1. This assures hunters and trappers have equal hunting opportunities during the open seasons for Big Game, while still allowing the trapper to transport a fire arm for use in his trapping operations. 2. Designed to afford time to Big Game animals for feeding and resting - thus reduces persistant hunting pressures.

Provincial Regulations - (Continued)

Prohibitions (continued)

	Reasons For:
10. Trap wildlife using any leg-hold or foot-hold traps with a jaw-spread equal to or greater than 23 cm (9 inches).	Traps exceeding this jaw spread or with teeth are unnecessary to hold any of our furbearers and must not be used.
11. Trap wildlife using leg-hold or foot-hold traps with toothed jaws.	
12. Sell raw fur to anyone other than a fur dealer or furrier.	To ensure the lawful sale and possessions of raw fur. *Licenced buyers are required to record trapper licence numbers and pelt sale information which is submitted monthly to the Fish & Wildlife Division - (Fur returns etc. are compiled from this information).
13. Set out, use or employ a poison or drug for the purpose of taking fur-bearing animals or fur-bearing carnivores except as provided for by the Agricultural Pest Act.	Controls the use of poisons or drugs by only those people qualified to use them and also restricts such use to recognized pest animals.
14. Remove, molest, spring or in any way interfere with traps set by another person for the taking of fur-bearing animals or fur-bearing carnivores. (Exception: the holder Certificate of Registration Trapping Area discovering traps or snares other than his own within the limits of his trapping area may remove those traps or snares and deliver them to a Wildlife Officer or Justice).	Protects trappers from direct interference to sets he has made so that he can carry on his trapping operation unmolested. Also permits trappers to deal with of a unauthorized trapping traps or activity within his area.
15. Leave traps which are not killing devices, set under the authority of a Resident Trappers Licence or a Certificate of Registration of a Trapping Area, unchecked for more than 72 hours.	Assures that animals trapped with holding devices receive attention within 72 hours so that prolonged stress and physical injury is avoided.

Provincial Regulations - (Continued)

Accidental trapping of unauthorized Wildlife	Reasons For:
Any person who, in the course of any trapping operations accidentally takes a fur-bearing animal or fur-bearing carnivore during a closed season, must skin and properly prepare the pelt and deliver it to the nearest Fish and Wildlife Office. Proceeds resulting from the sale of this pelt may be returned in part or whole to the trapper.	This regulation provides the trapper with a legal means of disposing of accidentally caught furbearers, and provides for some revenue to the trapper.
Problem Wildlife Control	
New provisions in the Game Hunting Regulations allow landholders to take immediate action to control problem beaver and wolf.	This provision encourages land owners or occupants to take immediate action on their own to lessen damages caused by beaver or wolves.
Beaver - owners and occupants of private land and those they authorize in writing may hunt or trap beaver on such lands throughout the year without a licence. Between April 1st and November 1st those persons may also destroy any beaver house or dam on such lands.	Considerable expenses to the public occur in assisting land owners. This provision should lessen such expenditures and encourages land owners to take care of such problems.
Wolf - owners and occupants of private land and persons authorized to maintain livestock on public land, or their written designates, may hunt wolves throughout the year without a licence on those lands or any lands within five miles of those lands (provided they have a right of access). Traps may not be set under this authority.	
Provision is also made for the sale to authorized buyers of pelts taken in these situations.	Wherever possible, pelts of such animals should be utilized.

Provincial Regulations - (Continued)

Miscellaneous Information

Fur Tax Schedule

Any person in possession of the pelts of fur-bearing animals or fur-bearing carnivores on October 1st of the year following the date that these pelts were hunted or trapped must pay a Fur Tax as required under the following schedule:

Badger	$ .70
Beaver	.60
Bobcat	2.60
Coyote	1.25
Fisher	1.75
Fox (All)	1.25
Lynx	4.70
Marten	.55
Mink	.55
Muskrat	.08
Otter	1.50
Rabbit (Jack)	.02
Raccoon	.50
Squirrel	.02
Weasel	.03
Wolf	2.30
Wolverine	3.80

Reasons For:

A means of acquiring revenue from a natural resource and also provides statistical information.

This schedule is reviewed from time to time and is adjusted to reflect a fair return from the resource.

USE RESPECT
ENTER WITH
PERMISSION
ONLY

Trapper Compensation Program

A trapper compensation program established in 1980 provides compensation to trappers on Crown land for damages to cabins and trapping equipment caused by unknown parties, as well as consideration for loss of livelihood claims occurring from activities of the conventional oil and gas industry. Monies for such compensation come from a fund to which the Government and the oil and gas industry contribute. A review board, consisting of representatives from the Trappers' Association, Petroleum Industry, Indian and Metis groups advise the Government on problems associated with disturbances to trapping areas.

Information and claim forms for the Trappers' Compensation Review Plan can be obtained from your local Fish and Wildlife Office.

Guidelines for Claim Submissions:

Trappers affected by seismic operations of the conventional oil and gas industry should take the following steps:

1. Contact the company responsible and attempt to come to settlement.

2. If the trapper and company cannot settle their differences, the trapper can submit a claim at the nearest Fish and Wildlife Office. This claim will be checked by the Trapline Resource Officer who will contact the respective parties to discuss the important facts before reporting to the Review Board.

3. If vandalism has occurred to traps, snares and other assets by unknown persons the matter should be reported immediately to the nearest R.C.M.P. office. Also, the trapper should file a claim at the nearest Fish and Wildlife Office. If after the police investigation the culprits are not found then the claim will be reviewed by the Board and compensation considered.

The following suggestions will help you complete any claim:

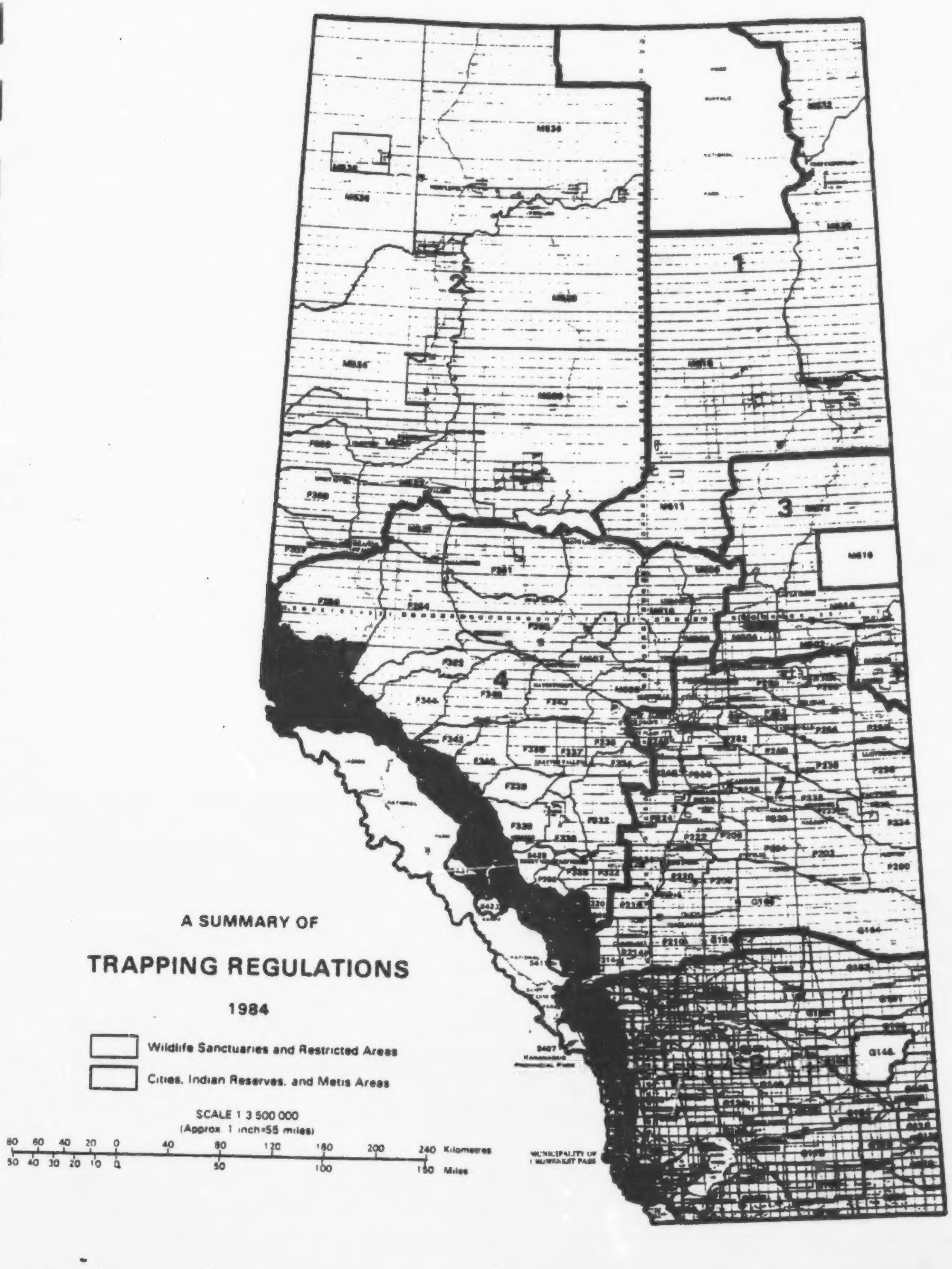
1. Keep all letters and correspondence received from companies.
2. Keep records as to date and place where damages occurred. Also, note any witnesses which may help you prove your claim. (Pictures are helpful.)
3. Note all names of companies operating in the trapping area.
4. Contact your nearest Fish and Wildlife Office to be certain they have records of all your cabin locations. Also, if you cannot be contacted while on the trapping area, leave name and telephone number of someone who knows how to contact you.
5. It would be wise to mark all traps and equipment. These can then be identified positively.
6. Advise all your partners when seismic activity occurs on your trapping area; as Senior Registrant, such notification is your responsibility.
7. Submit claims quickly, especially for vandalism. Also, after an impasse with companies is reached, fill in claim immediately.
8. Do not store sentimental, historic or collectors items in your cabins. These should be at your home. When the season is finished, store traps, etc., out of sight. Do not leave firearms in cabin.
9. When you are notified of seismic activities, please make an effort to remove your traps to other locations in your trapping area. If disturbances to traps and sets continue, notify the company and the nearest Trapline Resource Officer.

Remember this program is designed to help the trapper. Exaggerated or improper claims will affect all trappers and will take unnecessary time of the Trapline Resource Officer. In order to answer any inquiries regarding the Compensation Program you should contact Trapline Resource Officers at:

St. Paul	645-6212
Peace River	624-6246
Rocky Mountain House	845-5357

NOTE: Refer to the pocket page at the back of this manual for additional information on the trapper compensation program.

FUR MANAGEMENT ZONES


1
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F337
F336
F322
F224
F200
F202
F206
F210
F220
G423
MUNICIPALITY OF CROWSNEST PASS

A SUMMARY OF

TRAPPING REGULATIONS

1984

☐ Wildlife Sanctuaries and Restricted Areas

☐ Cities, Indian Reserves, and Metis Areas

SCALE 1:3 500 000
(Approx. 1 inch=55 miles)

80 60 40 20 0 40 80 120 160 200 240 Kilometres
50 40 30 20 10 0 50 100 150 Miles

CARTOGRAPHY BY THE RESOURCE EVALUATION AND PLANNING DIVISION, ALBERTA ENERGY AND NATURAL RESOURCES

This summary refers to the 1984 season

PART I GENERAL TRAPPING SEASONS

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8
BADGER	CLOSED	CLOSED	Dec 1-Apr 15	Dec 1 Apr 15	Dec 1 Apr 15	Dec 1 Apr 15	Dec 1 Apr 15	Dec 1 Mar 31
BLACK BEAR						CLOSED	CLOSED	CLOSED
BEAVER	Oct 1-May 15	Oct 1 May 15	Oct 1-May15	Oct 1-May 15	Oct 1 May 15	Oct 15 May 15	Oct 15 Apr 30	Oct 15 Apr 30
BOBCAT	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	Nov 1 Feb 28
COYOTE	Oct. 1 Feb. 28	Oct 1-Feb 28	Oct 1-Feb. 28	Oct 1 Feb 28	Oct. 1-Feb 28	Oct 1 Feb 28	Oct 1 Jan 31	Oct 1 Jan 31
FISHER	Nov. 1-Jan. 31	Nov 1 Jan 31	Nov 1-Jan 31	Nov 1 Jan 31	Nov 1-Jan 31	CLOSED	CLOSED	CLOSED
RED/ARCTIC FOX	Oct 1 Feb 28	Oct 1 Feb 28	Oct 1 Feb. 28	Oct 1 Feb 28	Oct 1-Feb. 28	Oct 1 Feb 28	Oct 1 Jan 31	Oct 1 Jan 31
LYNX	Nov. 15-Feb 15	Nov 15-Feb 15	Nov 15-Feb 15	Nov 15 Feb 15	Nov 15-Feb 15	Nov 15 Feb 15	Dec 1 Jan 31	Dec 1 Jan 31
MARTEN	CLOSED	Nov 1 Jan 31	CLOSED	Nov 1 Jan 31	Nov 1-Jan 31	Dec 1 Jan 31	CLOSED	CLOSED
MINK	Nov 1 Feb 28	Nov 1 Feb 28	Nov 1 Feb 28	Nov 1 Feb 28	Nov 1-Feb 28	Nov 1-Feb 28	Nov 15 Feb 14	Nov 15 Feb 14
MUSKRAT	Oct 1 May 15	Oct 1 May 15	Oct 1 May 15	Oct 1 May15	Oct 1 May 15	Oct 15-May 15	Oct 15 Apr 30	Oct 15 Apr 30
*OTTER	Dec. 1-Apr 15	Dec 1 Apr 15	Dec 1 Apr 15	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
RACCOON	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	Nov 1 Feb 28	Nov 1 Feb 28
RED SQUIRREL	Nov 1-Feb 28	Nov 1 Feb 28	Nov 1 Feb 28	Nov 1 Feb 28	Nov 1-Feb 28	Nov 1 Feb 28	Nov 1 Feb 28	Nov 1 Feb 28
SKUNK			NO	CLOSED	SEASON			
SNOWSHOE HARE	Oct. 1-Feb. 28	Oct 1-Feb 28	Oct 1-Feb. 28	Oct 1 Feb 28	Oct. 1-Feb 28	Oct 1 Feb 28	Oct 1 Feb 28	Oct 1 Feb 28
WEASEL	Nov. 1-Feb. 28	Nov 1 Feb 28	Nov 1-Feb. 28	Nov 1 Feb 28	Nov 1 Feb 28	Nov 1 Feb 28	Nov 15 Feb 14	Nov 15-Feb. 14
WOLF	Oct 1-Feb 28	Oct 1 Feb 28	Oct 1 Feb. 28	Oct 1 Feb 28	Oct 1-Feb 28	Oct 1 Feb 28	Oct 1 Feb 28	Oct 1 Feb 28
WOLVERINE	Nov. 1-Feb. 15	Nov 1-Feb 15	Nov 1-Feb 15	Nov 1-Feb 15	Nov. 1-Feb. 15	Nov 1-Feb 15	CLOSED	CLOSED

*No person who is the holder of a Resident Trapper's licence may hunt or trap otter

See additional season information ☐

PART II ADDITIONAL SEASON INFORMATION

ZONE 1	**Black Bear** -	4 black bear may be hunted on registered trapping areas north of the Red Deer River during the open season for black bear
	Otter -	Registered trappers may hunt or trap an aggregate total of 2 otter per trapping area per season
	Wolverine –	Registered trappers may hunt or trap an aggregate total of 1 wolverine per trapping area per season
ZONE 2	**Black Bear** -	4 black bear may be hunted on registered trapping areas north of the Red Deer River during the open season for black bear
	Otter -	Registered trappers may hunt or trap an aggregate total of 1 otter per trapping area per season
	Wolverine	Registered trappers may hunt or trap an aggregate total of 2 wolverine per trapping area per season
ZONE 3	**Black Bear** -	4 black bear may be hunted on registered trapping areas north of the Red Deer River during the open season for black bear
	Otter–	Registered trappers may hunt or trap an aggregate total of 5 otter per trapping area per season
	Weasel –	Weasel may not be trapped in that part of the province described as follows Ranges 1 to 5 inclusive, west of the 4th meridian, from the international boundary to the north boundary of township 64 This does not apply to Indian reserves and Metis areas set aside under the Metis Betterment Act which fall within the area described above.
	Wolverine—	Registered trappers may hunt or trap an aggregate total of 1 wolverine per trapping area per season
ZONE 4	**Black Bear** –	4 black bear may be hunted on registered trapping areas north of the Red Deer River during the open season for black bear.
	Wolverine –	Registered trappers may hunt or trap an aggregate total of 2 wolverine per trapping area per season
[illegible]	**Black Bear**–	4 black bear may be hunted on registered trapping areas north of the Red Deer River during the open season for black bear
	Wolverine-	Registered trappers may hunt or trap an aggregate total of 2 wolverine per trapping area per season
ZONE 6	**Wolverine**—	Registered trappers may hunt or trap an aggregate total of 2 wolverine per trapping area per season
ZONE 7	**Weasel** -	Weasel may not be trapped in that part of the province described as follows Ranges 1 to 5 inclusive west of the 4th meridian, from the international boundary of the north boundary of the 64th township This does not apply to Indian reserves or Metis areas set aside under the Metis Betterment Act which fall within the area described above
ZONE 8	**Weasel** –	Weasel may not be trapped in that part of the province described as follows Ranges 1 to 5 inclusive west of the 4th meridian, from the international boundary to the north boundary of the 64th township This does not apply to Indian reserves or Metis areas set aside under the Metis Betterment Act which fall within the area described above

NOTE Weasels are protected in Ranges 1 to 5 inclusive west of the 4th meridian, to assist in the control of Norway rats

Reasons For:

Trapping Management Zones

1. Divide the province into regions consisting of generally similar topographic features, habitat, climate, species composition, abundance and distribution.
2. Allows for better management of furbearers because regional differences can be taken into account and appropriate management applied.

Seasons and Quotas

Seasons for trapping furbearing animals are necessary in order to restrict the time period during which they may be taken. This ensures that animals are protected during the breeding and rearing seasons. Seasons also attempt to encourage trapping when furs are at their prime, thus increasing the revenue to trappers. Seasons, therefore, discourage waste of a resource.

Quotas are necessary in order to conserve the species by limiting the total take in order to prevent overharvesting. Quotas, therefore, ensure an equitable harvest of a limited amount of surplus among the trappers.

FISH AND WILDLIFE DIVISION LOCAL OFFICE TELEPHONE NUMBERS

Northeast Region

Athabasca.	675-2419
Barrhead	674-8251
Bonnyville	826-3142
Cold Lake.	639-3377
Drayton Valley (1/2 day)	542-6757
Edmonton	427-3574
Fort Chipewyan . . .	697-3636
Fort McMurray. . . .	743-7200
Lac La Biche	623-5247
Leduc.	986-6775
Lloydminster	875-5506
Provost (1/2 day). .	753-2433
St. Paul*	645-6212
Smoky Lake	656-3556
Stony Plain.	963-6131
Vegreville	632-5410
Vermilion.	853-2811

Southern Region

Brooks	362-5551
Cardston	653-4331
Claresholm	625-3301
Foremost (1/2 day) .	867-3826
Lethbridge*.	329-5266
Medicine Hat	529-3680
Picher Creek	627-3366
Vulcan (1/2 day) . .	485-6971

Central Region

Calgary.	261-6423
Camrose.	679-1225
Cochrane	932-2388
Coronation	578-3223
Drumheller	823-5740
Hanna (1/2 day). . .	854-4451
High River	652-3232
Olds	556-4215
Oyen (1/2 day) . . .	664-3614
Ponoka (1/2 day) . .	783-3337
Red Deer*.	340-5142
Stettler	742-4481
Strathmore	934-3422
Wetaskiwin (1/2 day)	352-1250

Peace River Region

Fairview	835-2737
Ft. Vermilion (1/2 day).	926-2238
Grande Prairie	539-2265
High Level (1/2 day. . .	926-2238
High Prairie	523-4561
Manning.	836-3065
Peace River*	624-6246
Spirit River	864-4101
Slave Lake	849-2281
Valleyview	524-3605

Eastern Slopes Region

Blairmore.	562-7331
Canmore.	678-2373
Edson*	723-8244
Elbow.	949-3754
Evansburg.	727-3635
Fox Creek (1/2 day). . .	622-3421
Grande Cache	827-3356
Hinton	865-3361
Kananaskis (1/2 day) . .	591-7222
Nordegg (1/2 day). . . .	721-3949
Rocky Mtn. House*. . . .	845-5357
Swan Hills	333-2229
Whitecourt	778-2515

(1/2 day) offices 1:00-4:30 p.m.

*Regional Fish and Wildlife Offices

Head Office Mailing Address:
Alberta Energy & Natural Resources
Fish and Wildlife Division
Main Floor, North Tower
Petroleum Plaza
9945 - 108 Street
Edmonton, Alberta
T5K 2C9

Energy & Natural Resources
Information Centre - 427-3590

Alberta

ENERGY AND
NATURAL RESOURCES
Fish and Wildlife Division

AFFIDAVIT OF FURS TAKEN

CANADA
PROVINCE OF ALBERTA
TO WIT

In the matter of the Wildlife Act

I, ..., of ...., in the Province of Alberta, holder of Registered Trapping Area No. .... in the Province of Alberta, make oath and say that the schedule below is a true statement of the Fur-bearing Animals and Fur-bearing Carnivores that I have taken during the 19 ...... - ...... trapping season.

SAMPLE

	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	TOTAL
BADGER									
BEAVER									
BLACK BEAR									
BOBCAT									
COYOTE									
ERMINE/WEASEL									
FISHER									
FOX(BLUE)									
FOX(SILVER)									
FOX(CROSS)									
FOX(WHITE)									
FOX(RED)									
LYNX									
MARTEN									
MINK									
MUSKRAT									
OTTER									
RABBIT									
RACCOON									
SKUNK									
SQUIRREL									
WOLF									
WOLVERINE									
OTHER (Specify)									

SWORN to before me at ....

....

in the Province of Alberta, this ....

day of .... A. D. 19..............

....
(Wildlife Officer, Commissioner or J.P.)

....
(Signature of Registered Trapper)

178

This certificate or a valid trapper identity card must be presented when disposing of any and/or all furs.

FEE $10.00
EXPIRES ON
AUGUST 31

INTERIM RECEIPT NO. ____________

Alberta
ENERGY AND NATURAL RESOURCES
Fish and Wildlife Division

Season
1C 06590

CERTIFICATE OF REGISTRATION OF A TRAPPING AREA

Subject to the provisions of "The Wildlife Act"

(LAST NAME) (FIRST NAME) (INITIAL) of

(ADDRESS)

(CITY OR TOWN) (POSTAL CODE)

is hereby granted the right to hunt, trap and kill Fur-Bearing Animals and Fur-Bearing Carnivores during the open season, and as permitted under the Wildlife Act and Regulations, on Registered

Trapping Area Number ☐☐☐☐ but not elsewhere

SAMPLE

Date of birth of licencee YR MON DAY

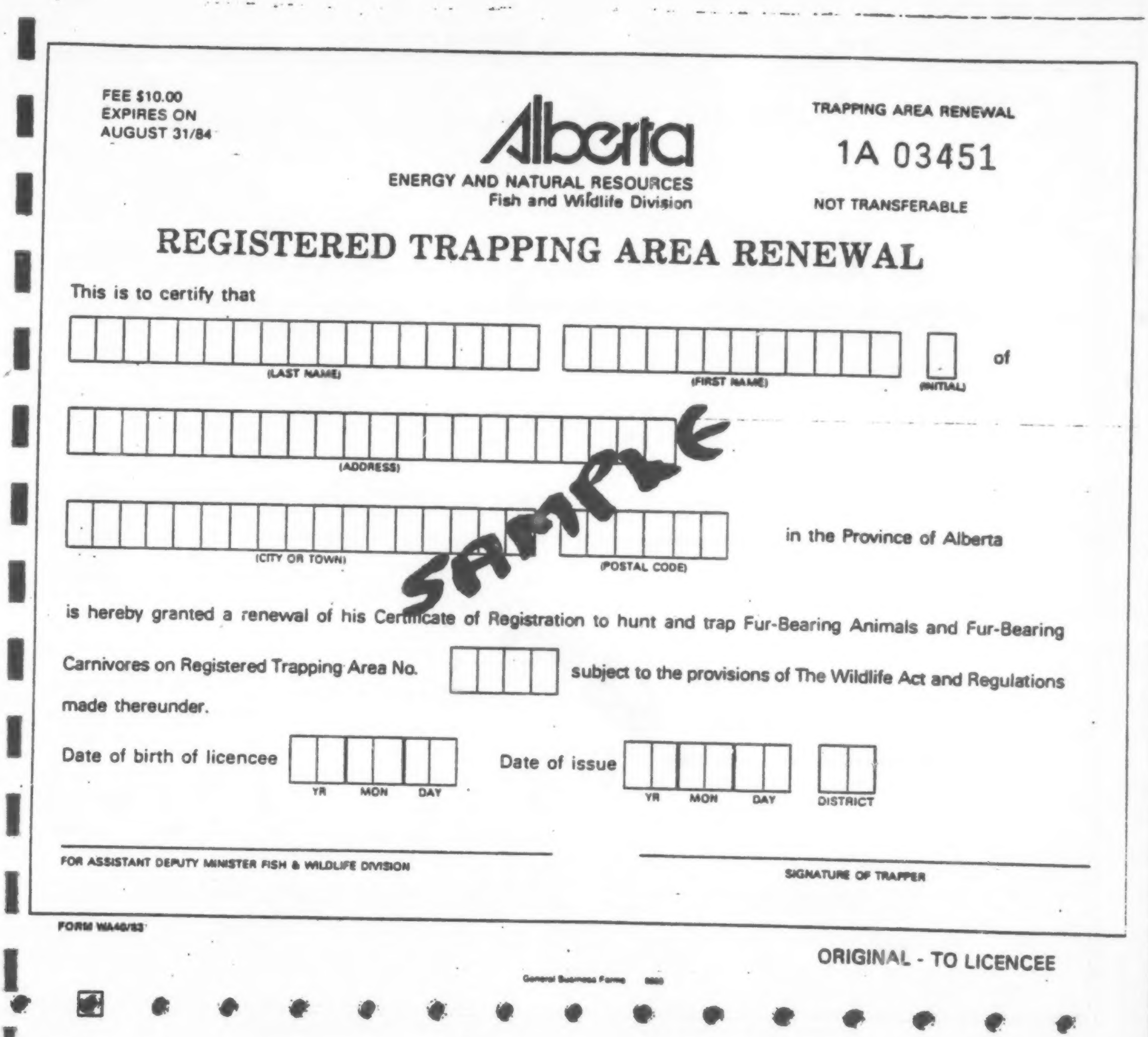
Date of issue YR MON DAY

____
FOR ASSISTANT DEPUTY MINISTER FISH & WILDLIFE DIVISION

This certificate is not transferable and the trapping area must be operated by the permittee. Sub-letting of the trapping area or any portion thereof is absolutely prohibited.

FORM WA11

ORIGINAL - TO LICENCEE



FEE $10.00
EXPIRES ON
AUGUST 31/84

Alberta
ENERGY AND NATURAL RESOURCES
Fish and Wildlife Division

TRAPPING AREA RENEWAL
1A 03451
NOT TRANSFERABLE

REGISTERED TRAPPING AREA RENEWAL

This is to certify that

(LAST NAME) (FIRST NAME) (INITIAL) of

(ADDRESS)

(CITY OR TOWN) (POSTAL CODE) in the Province of Alberta

SAMPLE

is hereby granted a renewal of his Certificate of Registration to hunt and trap Fur-Bearing Animals and Fur-Bearing Carnivores on Registered Trapping Area No. ☐☐☐☐ subject to the provisions of The Wildlife Act and Regulations made thereunder.

Date of birth of licencee YR MON DAY

Date of issue YR MON DAY

DISTRICT

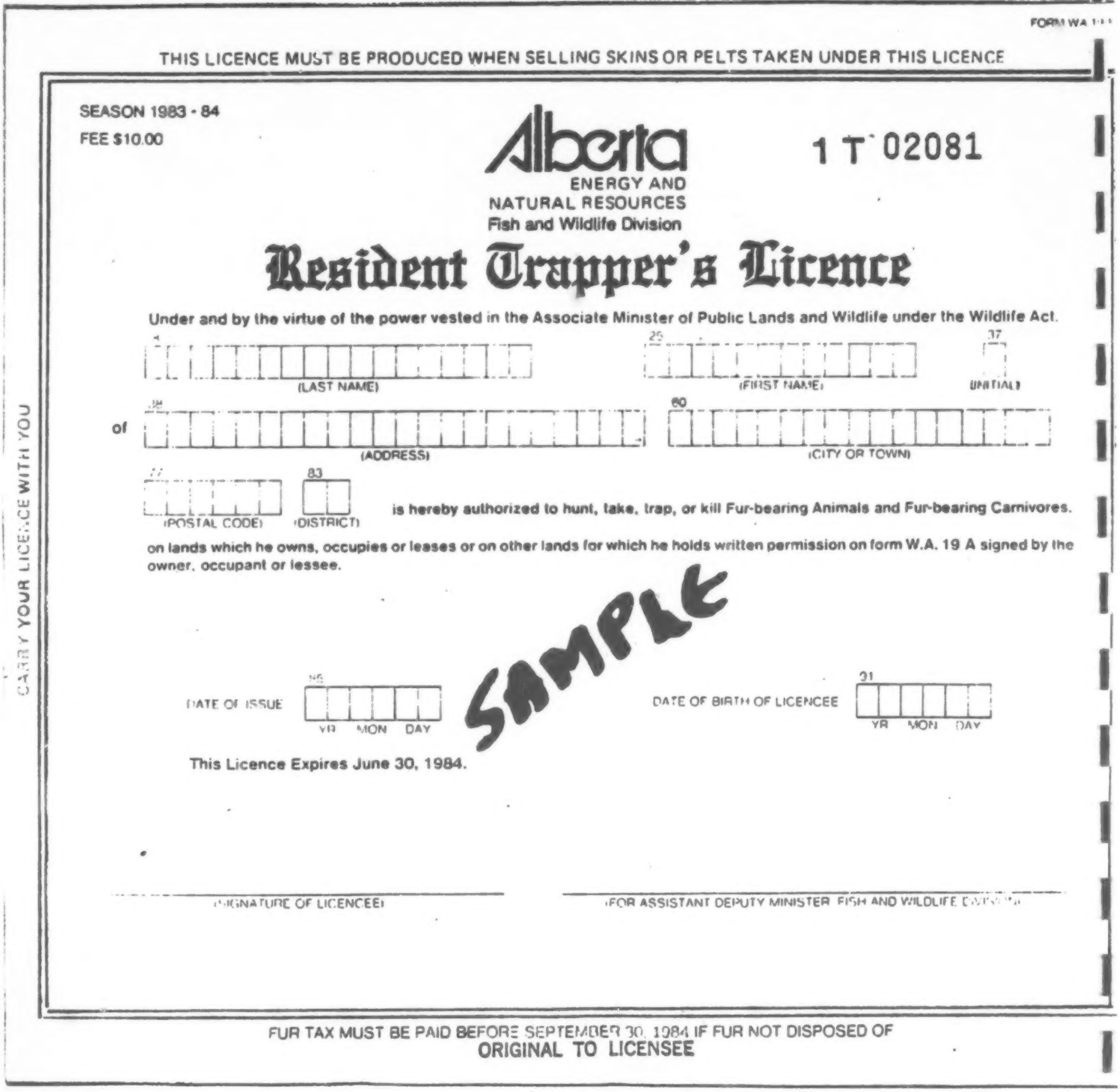
FOR ASSISTANT DEPUTY MINISTER FISH & WILDLIFE DIVISION

SIGNATURE OF TRAPPER

FORM WA40/83

ORIGINAL - TO LICENCEE

General Business Forms



FORM WA

THIS LICENCE MUST BE PRODUCED WHEN SELLING SKINS OR PELTS TAKEN UNDER THIS LICENCE

SEASON 1983 - 84
FEE $10.00

Alberta
ENERGY AND
NATURAL RESOURCES
Fish and Wildlife Division

1 T 02081

Resident Trapper's Licence

Under and by the virtue of the power vested in the Associate Minister of Public Lands and Wildlife under the Wildlife Act.

(LAST NAME) 25 (FIRST NAME) 37 (INITIAL)

of (ADDRESS) 60 (CITY OR TOWN)

(POSTAL CODE) 83 (DISTRICT) is hereby authorized to hunt, take, trap, or kill Fur-bearing Animals and Fur-bearing Carnivores.

on lands which he owns, occupies or leases or on other lands for which he holds written permission on form W.A. 19 A signed by the owner, occupant or lessee.

SAMPLE

DATE OF ISSUE YR MON DAY

DATE OF BIRTH OF LICENCEE 91 YR MON DAY

This Licence Expires June 30, 1984.

(SIGNATURE OF LICENCEE)

(FOR ASSISTANT DEPUTY MINISTER FISH AND WILDLIFE DIVISION)

FUR TAX MUST BE PAID BEFORE SEPTEMBER 30, 1984 IF FUR NOT DISPOSED OF
ORIGINAL TO LICENSEE

CARRY YOUR LICENCE WITH YOU

FORM WA19A

Alberta
ENERGY AND
NATURAL RESOURCES
Fish and Wildlife Division

Permission To Trap

(LAST NAME)	(FIRST NAME)	(INITIAL)
(ADDRESS)	(CITY OR TOWN)	(POSTAL CODE)

Holder of Resident Trappers Licence ____________________ is hereby authorized to hunt, take, trap or kill Fur-bearing Animals and Fur-bearing Carnivores on the lands described as follows:

Section Township Range West of the .... M.

SAMPLE

I hereby certify that I am the owner, occupant or lessee of the above described privately owned or occupied Crown lands.

(signature)

(name of owner, occupant, lessee Please Print)

(address)

(telephone number)

DATE OF ISSUE ☐☐☐☐☐☐
YR MON DAY

Expires June 30 of the following year.

Note: No hunting or trapping shall be undertaken unless the holder is in possession of a valid resident trappers licence.

CARRY YOUR LICENCE AND PERMISSION SLIPS WITH YOU

CARRY YOUR LICENCE WITH YOU

Season 1982-83

This licence will expire on the Final Date
of the 1982-83 Provincial Trapping Season.

Alberta

ENERGY AND NATURAL RESOURCES
Fish and Wildlife Division

1X09492

INDIAN TRAPPER'S LICENCE

Under and by virtue of Section 32 of The Indian Act, 1951,

SAMPLE

(LAST NAME) (FIRST NAME) (INITIAL) TREATY INDIAN

of the (NAME OF RESERVE) INDIAN RESERVE

is hereby authorized to hunt, trap or kill Fur-bearing Animals and Fur-bearing Carnivores, on the Indian Reserve to which he belongs, but not elsewhere, and to dispose of, by sale or barter, the skins or pelts of such Fur-bearing Animals and Fur-bearing Carnivores. (See reverse side.)

Date of birth of licencee YR MON DAY

Date of issue YR MON DAY

(INDIAN SUPERINTENDENT)

N.B. - This licence is not valid unless signature of the Indian Superintendent appears thereon.

FORM WA16/83

Present Your Licence When Selling Furs

(OVER)

ORIGINAL - TO LICENCEE

General Business Forms 6089

CARRY YOUR LICENCE WITH YOU

Season 1981-82

1P 07302

Alberta
ENERGY AND NATURAL
RESOURCES
Fish and Wildlife Division

METIS TRAPPER'S LICENCE

Under and by virtue of the power vested in the Associate Minister of Public Lands and Wildlife under The Wildlife Act, and regulations

(LAST NAME) (FIRST NAME) (INITIAL) Metis

of the (NAME OF COLONY) Metis Colony (DISTRICT)

is hereby authorized to hunt, trap, take or kill Fur-bearing Animals and Fur-bearing Carnivores, during the open season therefor on the Metis Colony of which he is a member, and in conformity with the Regulations made under The Metis Population Betterment Act governing the hunting and trapping on Metis Colonies.

SAMPLE

Date of birth of licencee YR MON DAY

Date of issue YR MON DAY

SIGNATURE OF METIS COLONY MANAGER

SIGNATURE OF LICENCEE

N.B. - This licence is not valid unless the signature of the Metis Colony Manager appears hereon.
(Read carefully the instructions on the reverse side.)

FORM WA34

This licence does not authorize the holder thereof to trap outside Metis Colonies.
You must present your licence when selling furs.

ORIGINAL - TO LICENCEE

General Business Forms 3609

FORM WA 13

TO BE FORWARDED TO CONSIGNEE WITH SHIPMENT

Alberta
ENERGY AND
NATURAL RESOURCES
FISH and WILDLIFE
DIVISION

J 1454

PERMIT TO EXPORT FUR

Under and by virtue of the power vested in me under The Wildlife Act, permission is hereby given to

____

of _______________

to export to _______________

____

the pelts of fur-producing animals, as follows:

_____ BADGER
_____ BEAVER
_____ BOBCAT
_____ COYOTE
_____ FISHER
_____ FOX (SILVER, BLACK)
_____ FOX (CROSS)
_____ FOX (RED)
_____ FOX (BLUE)
_____ FOX (WHITE)
_____ LYNX
_____ MARTEN
_____ MINK
_____ MUSKRAT
_____ OTTER
_____ RABBIT (JACK)
_____ RACCOON
_____ SKUNK
_____ SQUIRREL
_____ WEASEL/ERMINE
_____ WOLF
_____ WOLVERINE
_____ OTHER
_____ OTHER

SAMPLE

Number of packages _______________

Declaration Tag No. _______________

Fur Tax Receipt No. _______________

Carrier _______________

Date of Issue _____ . _____ This Permit expires _______________

Countersigned:

____
Fur Tax Collector

Asst. Deputy Minister
Fish & Wildlife Division

Alberta
ENERGY AND
NATURAL RESOURCES
FISH AND WILDLIFE DIVISION

FUR TAX
RECEIPT

FORM WA8 (REV 78)

01460 B

TRAPPER OR
DEALER LIC # ☐☐☐☐☐☐☐

_______________ , ALBERTA _______________ 19 ____

Received FROM _______________

OF _______________

THE SUM OF _______________ ______ DOLLARS
100

BEING TAX COLLECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE WILDLIFE ACT, ON THE FOLLOWING SKINS

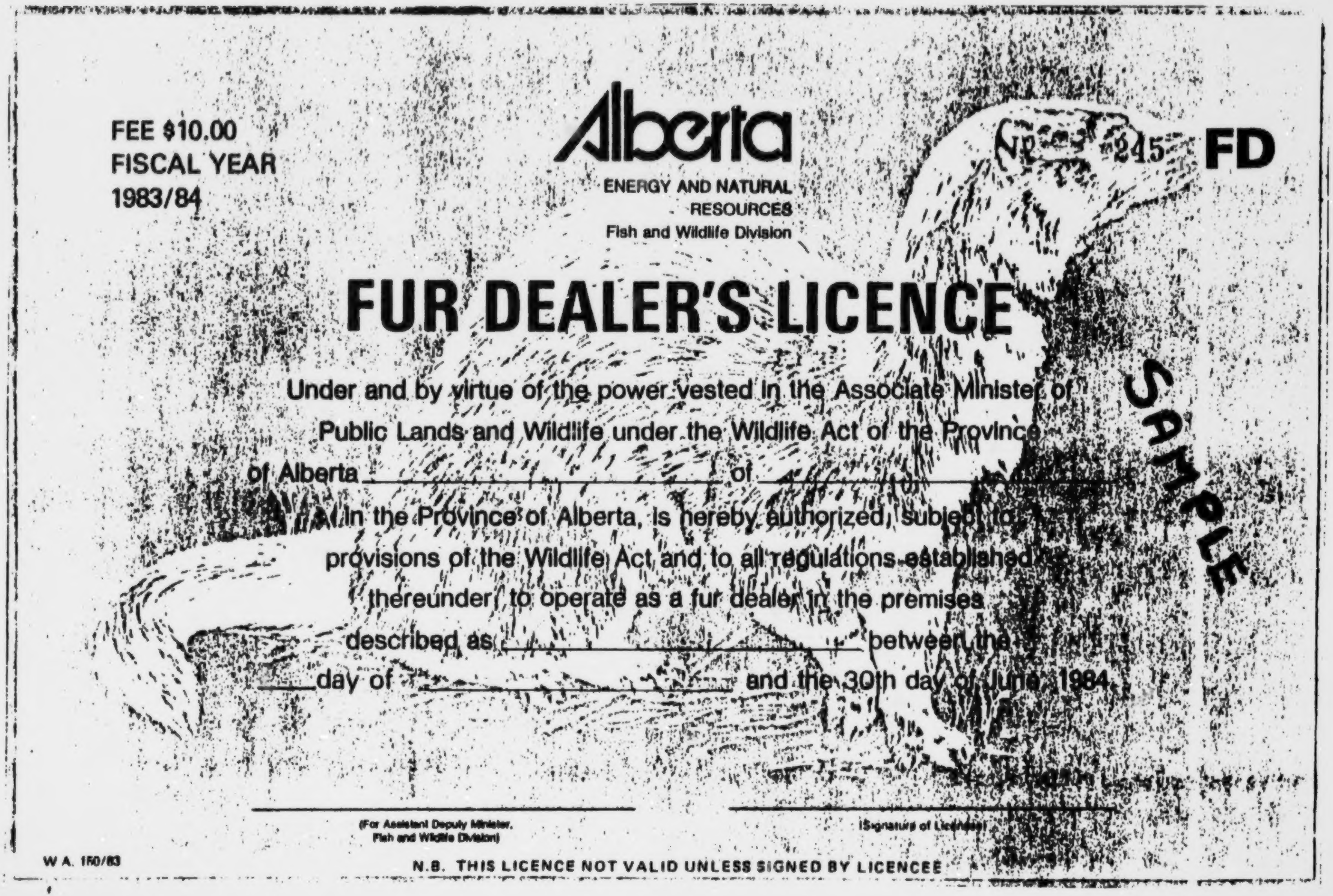
_____	BADGER _____	@	$ 70 _____	$ _____
_____	BEAVER _____	@	60 _____	$ _____
_____	BOBCAT _____	@	2 60 _____	$ _____
_____	COYOTE _____	@	1 75 _____	$ _____
_____	FISHER _____	@	1 75 _____	$ _____
_____	FOX (SILVER BLACK) _____	@	1 25 _____	$ _____
_____	FOX (CROSS) _____	@	1 25 _____	$ _____
_____	FOX (RED) _____	@	75 _____	$ _____
_____	FOX (BLUE) _____	@	[illegible] _____	$ _____
_____	FOX (WHITE) _____	@	[illegible] _____	$ _____
_____	LYNX _____	@	4 70 _____	$ _____
_____	MARTEN _____	@	55 _____	$ _____
_____	MINK _____	@	55 _____	$ _____
_____	MUSKRAT _____	@	08 _____	$ _____
_____	OTTER _____	@	1 50 _____	$ _____
_____	RABBIT (JACK) _____	@	02 _____	$ _____
_____	RACOON _____	@	50 _____	$ _____
_____	SQUIRREL _____	@	02 _____	$ _____
_____	WEASEL _____	@	03 _____	$ _____
_____	WOLF _____	@	2 30 _____	$ _____
_____	WOLVERINE _____	@	3 80 _____	$ _____
_____	OTHER _____	@	_____	$ _____
			TOTAL	$ _____

SAMPLE

____
WILDLIFE OFFICER

EXPORT PERMIT _______________

ORIGINAL — When fur is exported, this copy is to be attached to the blue copy of the Export Permit. (If fur not exported, this copy is to be given to the Payee.)



FEE $10.00
FISCAL YEAR
1983/84

Alberta
ENERGY AND NATURAL
RESOURCES
Fish and Wildlife Division

Nº 245 **FD**

FUR DEALER'S LICENCE

SAMPLE

Under and by virtue of the power vested in the Associate Minister of Public Lands and Wildlife under the Wildlife Act of the Province of Alberta ______________ of ______________ in the Province of Alberta, is hereby authorized, subject to provisions of the Wildlife Act and to all regulations established thereunder, to operate as a fur dealer in the premises described as ______________ between the ____ day of ______________ and the 30th day of June, 1984.

____
(For Assistant Deputy Minister,
Fish and Wildlife Division)

____
(Signature of Licensee)

W A. 150/83

N.B. THIS LICENCE NOT VALID UNLESS SIGNED BY LICENCEE

TRAPLINE MANAGEMENT OF FUR BEARERS BY THE TRAPPER

Introduction

The successful and conservation minded trapper does not leave the management of the fur bearers on his line to chance or to provincial regulations alone. Rather, he takes steps to ensure specific management of his own area. This should be done in order to attain the highest possible sustained yield of fur bearers while ensuring a proper balance is maintained between the various species of animals.

An important step in managing any wildlife species is to assess its present population size and condition (ie: are the animals abundant, of average occurrence or scarce and are they healthy, diseased, fat or starving, etc.)

It is also important to determine the population trend (ie: does the population appear to be increasing, decreasing or remaining stable).

The amount and condition of various habitat factors (such as food, shelter, water, etc.) available to the species should also be assessed.

Bearing these things in mind, the trapper should then decide the degree to which each species should be harvested or not. The goal should be to achieve the best possible balance and stability in fur bearer populations.

Much valuable information on furbearer populations and habitat can be obtained through the Fish and Wildlife division. Provincial Biologists and Ecologists can generally give you fairly accurate assessments and may be able to direct you to specific biological studies or reports on this subject. The annual fur return statistics may also give clues to furbearer populations if properly interpreted.

Nevertheless, the most up to date information on furbearer populations and habitat can only be found on your own trapping area.

In order to obtain this information, the trapper himself must know what signs to look for and how to collect and interpret the information.

Some signs the trapper can look for which indicate fur bearer population size and condition, population trends, habitat conditions and the appropriate harvest strategy are as follows:

Signs of overabundance or under harvest - the trapper should increase harvest pressure

- disease, parasites, dead animals are common, animal's condition is poor - skinny, red marrow
- habatit damaged or food scarcity ie: beaver cut trees far from pond, spruce in feed bed, lynx present, but no rabbit sign
- signs of fighting - scars on pelts very common (muskrat)
- tracks, dropping, dens, lodges, etc. abundant
- population trends - if catching mostly young and male animals, may be a sign that the population is increasing(NOTE: This analysis should be based on a sufficiently large sample.)
- a constant pattern of animals moving out of the area

Signs of Scarcity or overharvesting - the trapper should decrease or cease harvesting

- little sign of disease, parasites, etc.
- animals usually in good condition (lots of fat, yellow marrow)
- food sources abundant (few lynx, lots of rabbits)
- less sign of fighting or competition
- population trends - if mostly catching older female animals, may be a sign that the population is declining (NOTE: this analysis should be based on a sufficiently large sample)
- scarcity of animal signs - tracks, etc.
- little or no sign of habitat overuse by animals

Signs of stability - The trapper should maintain harvest pressure

- animal populations seem to be in balance with food supplies, animals in generally healthy physical condition
- if catching good cross section of population ie: average number of all ages, sexes, etc. (NOTE: This analysis should be based on a sufficiently large sample.)
- generally adequate sign of animal numbers
- little or no habitat overuse by animals

Each year, a trapper should perform a "pre" season assessment of the furbearer and other relevant animal populations and habitat conditions on his trapping area and record the information.

During the course of the season, harvest records should be kept on the numbers, species, sex, age, etc. of the animals taken.

These records, if properly kept, are the most valuable tool the trapper can have for managing his line. (Refer to the Trapline Preparation and Business Management section of the manual for more details on proper record keeping.)

Assessing Habitat

In order to assess the habitat conditions for a species, a trapper must first familiarize himself with the habitat requirements and preferences of the species. (Refer to the Biology section of this manual for information on species habitat.)

A picture of the quantity and location of suitable habitat available to the species can be obtained by careful examination of maps and aerial photos. (Refer to the Trapline Preparation and Business Management section for futher information on the use of maps on trap set locations on Page ___).

The areas you are planning to trap in should be examined on foot to check the food, water and shelter conditions available to the furbearing species you are interested in harvesting.

Assessing Populations

Population information is essential to the proper management of a trapping area however the trapper should also keep in mind that it is difficult to determine the exact populations of most species.

This is neither necessary nor expected. Rather, what is needed is a general overall estimate of the population size and trends.

The first time a trapper does a census of his area will:

1. tell him what species are currently to be found there and
2. give him a very rough indication of the present population size of the species on his trapping area.

He will not be able to determine the population trend at first. In order to do that, more than one assessment must be done with a reasonable interval of time in between.

The first years' harvest data can be used to compare the accuracy of the pre-season census.

The accuracy of assessments will increase as you gain experience and accumulate more data. In the early stages, you must take care not to "jump to conclusions" when there isn't enough data or to misinterpret the data. For example, if a trapper is not catching many animals, it may not mean that the population is low but rather that trapper's skill is poor. In this instance, the census check would tell the story.

If you are uncertain of how to interpret the information you have collected, seek the advice of your Fish and Wildlife officer or biologist.

After a few years, you will probably be able to determine population trends or movement patterns by comparing your current data with that collected in previous years.

Each additional year that assessments are done and data is collected will add to your knowledge and become increasingly important when managing your trapping area.

Adjusting the Harvest Levels

Once a trapper has a fair estimate of the furbearer populations, trends and habitat conditions on his area, he should then adjust his harvest take accordingly.

This means setting a goal as to the numbers of each furbearer species to be harvested in order to maintain a good species and habitat balance - in other words, setting harvest quotas on each furbearing species.

In some cases, this may mean increasing the harvest. In other cases, it may mean limiting the take. Whatever the case, once quotas have been set, they should be adhered to unless there are very strong indications that the original assessments were wrong or that conditions have suddenly changed.

Be honest with yourself in these assessments; base them on objective biological observation, not on immediate monetary concerns. In the long run, it will pay off.

At the present time in Alberta, there are no mandatory quotas for furbearers (other than for otter and wolverine). However, there is nothing preventing a trapper from setting his own voluntary harvest quotas for any species, as we have suggested here.

This is a useful practice to engage in as it automatically involves assessing the population, etc., gives you a goal to aim for and acts as a measurement to gauge harvest levels in following years. Quotas, based on the best possible information available to you, are the most effective means of regulating your harvest and they can be used as a guide to protect a low population from overharvesting or an abundant population from underharvesting.

Reserve Areas and Rotational Trapping

A trapper may consider voluntarily leaving some portions of his line untrapped or "in reserve" in order to conserve certain furbearing species on his line. These areas should contain suitable habitat and and a nucleus population which will hopefully increase and repopulate adjacent areas. For example, a trapper might trap only the main streams for beaver, mink, etc. and leave the smaller tributarys for reserve stock. He may leave the centre of his trapping block alone and only trap around it, etc.

If the line is large enough, or borders a vacant line or park, it may not be necessary to do this, but if the line is very small and it and the surrounding areas have been heavily trapped, it may be necessary to let the entire area rest for a year or more.

Another approach, usefull especially for very large lines, is to trap on a rotational basis (ie: trapping a different section of your line each season).

Each situation will vary and the individual trapper will have to judge for himself what management system is the most suitable to his own set of circustances.

Artificial Stocking

If there appears to be suitable habitat for a species natural to the area and yet none have occurred there for an extended period, the trapper may consider inquiring with the Fish and Wildlife division about having the area artifically restocked.

Even though it may not be financially feasible to restock one line, it is still worth registering your interest, for if enough inquiries are made, it may become worthwhile. Remember the beaver you are trapping today were artifically restocked in northern Alberta during the 1930's, also, fisher have been successfully restocked in Ontario and parts of the U.S. Otter and fisher are being reintroduced in the Kananaskis area of Alberta, so it can be successful if properly done.

Winter Feeding

The carcasses of captured animals, which are not required for bait or food by the trapper, should be left on or returned to the trapping area as food for birds and other animals. (See section on Parasites and diseases in this manual for information on recognition of diseased conditions in furbearers. If disease is suspected, the uarcass should not be used in this manner and instead, should be reported to the nearest Wildlife agency.

When leaving carcasses in the field, avoid placing them where they will be readily seen by people and distribute them throughout the area so that animals will not congregate too much in one area as this may give disease a better chance to spread through the population.

Studies have shown that marten which received suplemental feed during the critical late winter months when food is scarce, had a higher survival rate and produced more young the following spring.

Another example of winter feeding is cutting brush for rabbit feed; this can be simply accomplished by cutting suitable trees down here or there as you are travelling your line.

Placing hay bales at various spots on your line with a pile of grain under them can be a boon to the mouse population.

The rabbits and mice will, in turn, feed your lynx, fox, coyote, etc. These simple measures can significantly increase the carrying capacity of your line for furbearers, especially if employed during the late winter months.

Salvaging Nuisance Animals

Areas close to rural farm lands should be trapped heavily, thereby salvaging potential problem animals.

Beaver, in particular, frequently cause problems by daming culverts and flooding roads, fields, etc. The trapper should keep an eye out for where these kinds of situations may develop and trap the animals. This will improve the trapper's image as a resource manager and will help the land owner in decreasing potential problems.

Harvesting Strategies

The timing of harvest is very important in the management of furbearers.

In the early part of the harvest season (ie: late fall and early winter), furbearer populations are at the highest point they will be for that season. At this time, there are many juveniles in the population. In a number of species (see Biology section), juveniles are in the process of dispersing to find and establish new territories. Many of these animals are surplus to what the habitat can support and may not survive the winter due to a variety of causes. However, until this happens many of them will be competing with the adults and each other for food and space, and it is the adults which form the most valuable breeding stock for the next season.

Because these juvenile animals are inexperienced and, in some cases, on the move, they are much more susceptible to trapping at this time of year. The trapper can use this to his advantage by concentrating his harvesting activities in the fall and early winter (approximtely November - January).

In doing this, he will remove mostly juveniles from the population and spare his valuable breeding stock for the next season. By coincidence, this time period also coincides with the season when the animal's fur is prime and most valuable and the pelts of the juveniles are generally of equal value to those of the adults for most species.

If a trapper is well organized, he should be able to adequately harvest his line during this period. This has the advantage of avoiding trapping during the late winter and spring when most species are at their population low point and are breeding and rearing their young. Trapping late in the season may remove breeding stock and could disrupt the normal mating cycle leading to a lowered production for the following year. Most species' pelts are also over prime or rubbed, and as a result, are much less valuable at this time of year.

Another good harvesting practice is to obey the law of diminishing returns (ie: as soon as a noticeable drop in trap captures for a species occurs in a given area, pull up your sets for that animal and move to a new location). This avoids over harvesting the valuable breeding stock.

Some other clues a trapper can use that will give him an indication of when to ease up on trapping pressure is the percentage of young to adults and males to females in the catch. The males of most species tend to range more widely than females, as do the younger animals, and as a result, are more susceptible to being trapped. Therefore, if the greatest percentage of your catch is males and younger animals, you are probably not over harvesting the population. If, on the other hand, you begin to get a high ratio of older or female animals, it could be a sign that the population is getting low and that it is time to pull your traps in that area. Of course, the trapper should realize that the sample numbers must be sufficiently large before reasonably accurate conclusions can be drawn from them.

Selective trapping methods can also be used to manage furbearers. For instance, if a trapper wished to conserve marten in a certain area, he may be able to do so by avoiding making sets in that area that will take marten. He would still be able to trap fox, coyote, lynx, squirrels, beaver, muskrat, etc. by using snares, under water sets, etc.

The shooting of fur bearers is not a recommended harvesting method, as it damages the pelt and can result in the loss of the animal.

Habitat Improvement

It may be feasible and desirable for some trappers to undertake more long term habitat improvements to increase production on their lines. For instance, planting wild rice can increase muskrat populations. Building brush piles will create shelter for rabbits and mice which will ultimately result in increased carnivore populations. These also make excellent trap set locations.

Placing tile drains at occasional points along a shoreline can improve access into the water for mink during the winter months and thereby increase their survival rate.

In areas where beaver feed supplies are low, the regeneration of poplar growth may be achieved by planting root suckers or by fencing off areas to prevent access to the beavers until regrowth has occurred.

Often, grassy areas in the forest can be maintained by cutting as this creates good habitat for mice. Farmers can accomplish the same results by leaving a few rows of grain standing along the edge of a field next to wooded areas.

Maintaining or encouraging beaver ponds, where desirable, creates good habitat and feed areas for a wide variety of fur bearers.

These are just a few of the possibilities. If the trapper is interested in finding out more or in taking on more ambitious schemes, he should make inquiries through the Fish and Wildlife office, who can advise him as to the feasability of the project and possible government assistance programs.

Management Possibilities on Private Lands

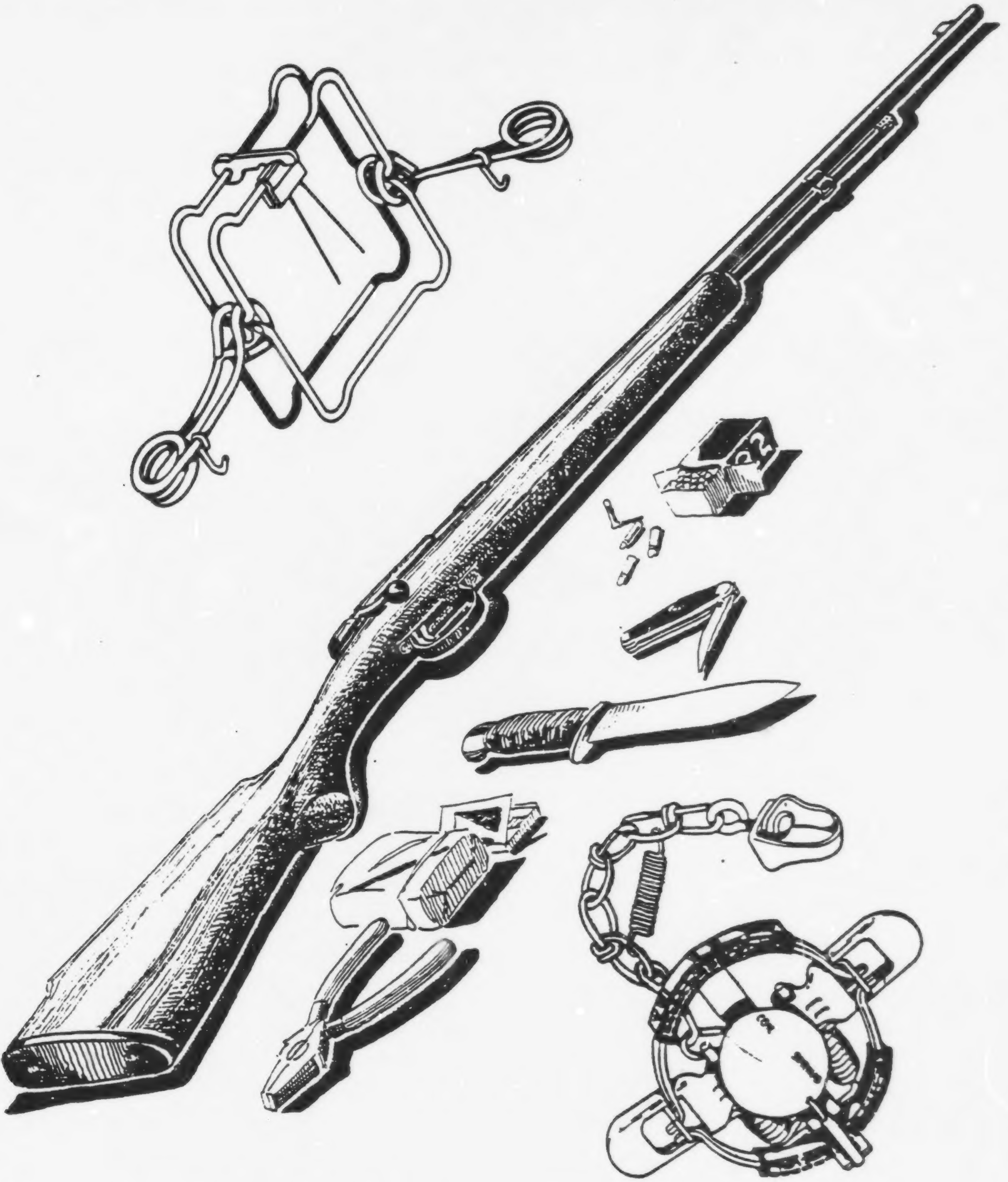
Resident trappers should consider the benefits that better management of trapping on private lands could bring. A great portion of Alberta's fur originates from private lands. A balanced trapping plan can ensure a continued supply of fur from private lands. However, be sure to advise the land owner of your trapping plans for his area.

Ontario has recently implemented a program whereby resident trappers would, with the consent and cooperation of the land owner, have exclusive trapping rights over a block of private lands much like a registered line on crown lands. This would eliminate competitive trapping and allow for long range, cooperative management to occur.

SUMMARY OF TRAPPER FUR BEARER MANAGEMENT

1. Follow the management guidelines contained in the **provincial regulations.**
2. **Assess** present furbearer **population, size and condition.**
3. **Assess** population **trends.**
4. **Assess** the **habitat conditions** for each species (ie: food, shelter, water, etc.)
5. **Adjust harvest** to achieve balance and stability in fur bearer populations.
6. Voluntarily **assign quotas** to regulate your harvest.
7. **Keep records** for management purposes.
8. Where necessary, use rotational trapping or maintain reserve areas to **conserve** fur bearer populations.
9. Where desirable and feasible, pursue the possibility of **artificial stocking.**
10. If possible, undertake **winter feeding** programs.
11. Heavily trap potential **nuisance animals.**
12. Plan your **harvest strategy** to take fur bearers at the best time of the year and to conserve populations.
13. Where feasible and desirable, undertake **habitat improvements** to your line.
14. Resident trappers should consider the benefits that better **management on private land** could bring.

Equipment



Lesson Objectives

To provide information to the student on:

1. The most recommended types of Equipment available and its safe use in the trapping trade.
2. What economic and other considerations to make in assessing and selecting his equipment to suit his particular needs.
3. The importence of maintaining equipment in good condition.
4. Basic snowmobile maintenance and repair.

Equipment

Introduction

A trapper's equipment may vary in value considerably, depending upon the size of his operation. The important point is that the quantity and quality of the equipment is adequate for the job, not excessive or inadequate.

Since the type and condition of a trapper's equipment will greatly affect the success of his operation, it is essential that he carefully assess his equipment "needs" in terms of its suitability and economy, and that he maintains and repairs his equipment regularly in order to get the full value and usage from it.

Some things a trapper should consider in assessing equipment needs are:

- the type of area he is trapping (size, location, etc.)
- the conditions - seasons, etc., he will be trapping under
- other occupations he may be involved in
- the number and species of animals he is likely to be trapping (consider quotas, etc.)
- what is the "best value" in terms of the equipment being adequate for the job at the best price

The main catagories of equipment that a trapper requires are:

- capture equipment
- trapping accessories
- fur handling equipment
- transportation equipment and living accommodations

Trapping Equipment

A checklist of capture equipment is as follows:

Traps
- body grip traps
- foot hold traps (to kill or hold)
- submarine traps (round or square)
- live traps (box)

Snares
- foot snares (for holding)
- power snares (for killing)
- killing snares (non power)

Guns
- to capture or kill live caught animals

With some types of equipment, personal preference may play a significant role in what is selected, but with capture equipment, the choice should be governed by what is the most humane and efficient device available for a given species, as specified in the trap selection chart contained in this book.

The proper care of traps is very important to the successful trapper. New and used traps should be individually checked every year prior to the opening of the season.

Foot hold trap triggers should be set, tested and adjusted until they function properly. On foot hold traps, the trap pan should be level when the trap is set and the dog and pan notch square. If they are not, they should be made so. Chain links and all swivels should be carefully checked for weaknesses, and be sure that the trap jaws are secure in the frame. If the rubber is damaged on cushioned traps, replace as shown in the diagram in this book. Repair any other defects that may be found and replace all weak springs.

Conibear traps should also be carefully inspected, set and tested each year, before the season. Damaged or shoddy triggers should be replaced and the trigger mechanism properly shaped and adjusted for the intended species (see trigger position drawings). Be sure the safety hooks are in place and always use safety gripper when setting body grip traps. Check the chains for wear and springs for weakness (*always store traps with the springs expanded).

All of the above traps should be treated (cleaned, dyed and waxed as shown in chart) before the opening of the season.

Submarine Traps do not need to be treated if they are constructed from galvanized metal. Details of how to build these are shown in the accompanying diagrams. The trapper must exercise great care in the use of these traps because of the danger of over harvesting that they pose.

They are most useful in nuisance situations or for clearing out a muskrat population that is doomed to freeze out. Their use is often limited because of their unwieldly size.

Live Traps are normally used only for special situations as their size and expense prohibits greater use.

They are mostly used for removing nuisance animals cut of season for restocking elsewhere, or by some trappers in very populated areas where kill traps cannot be used. They can be successfully used for capturing raccoon, fisher, marten, skunk, squirrels, beaver, mink, weasel and muskrat. These sets must be checked regularly or the device soon becomes inhumane.

It is best to use live traps made of steel mesh rather than wooden ones as they are more durable, easier to camoflage and the animal is more likely to enter as it can see through the trap. Also, it cannot chew out of it, as with a wooden trap.

Snares can be either purchased ready made or they can be made by the trapper himself. In either case, it is of the utmost importance that the snare be constructed properly and from the finest materials. (See chart for proper size and strength of materials for snares).

Snare operation should be checked before use ie: the lock should move down the wire smoothly and lock on return; the loop should lay flat (check by laying the wire on a flat surface). Be sure that the ferrules are clamped securly.

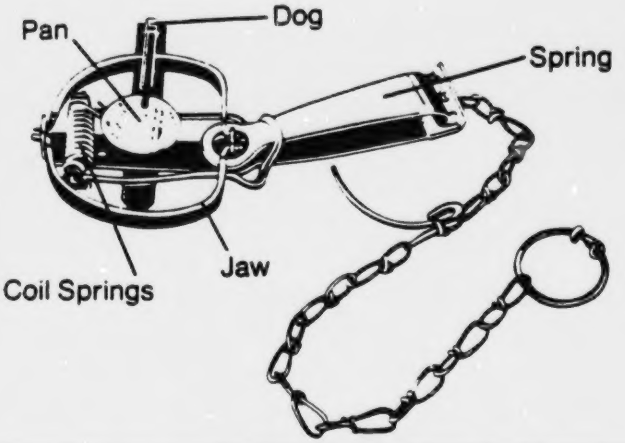
Do not reuse snares once they have captured an animal (retain the lock only if it is undamaged). Use new wire, figure 8 and ferrules as these will be fatigued or damaged.

Snares should also be treated prior to the start of the season as detailed in the chart.

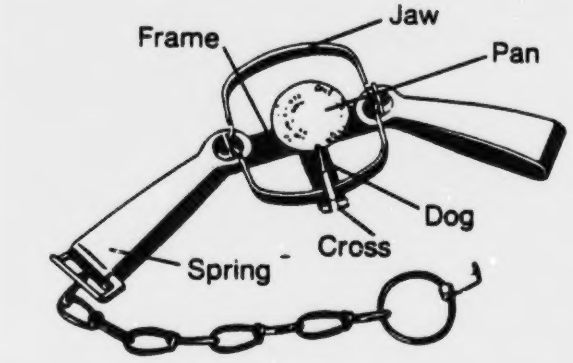
Foot snares and power snares are still being tested but seem to hold promise as humane devices.

Capture Equipment —— Trap types and terminology

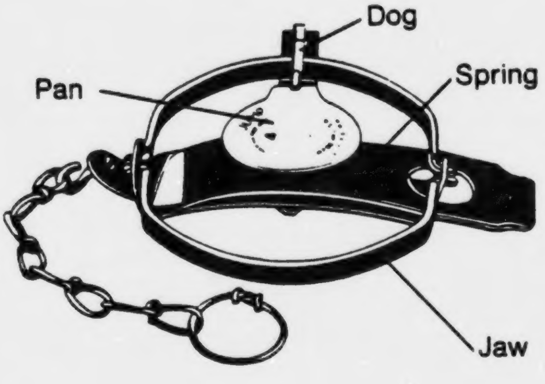
Stop Loss Traps


Pan
Dog
Spring
Coil Springs
Jaw

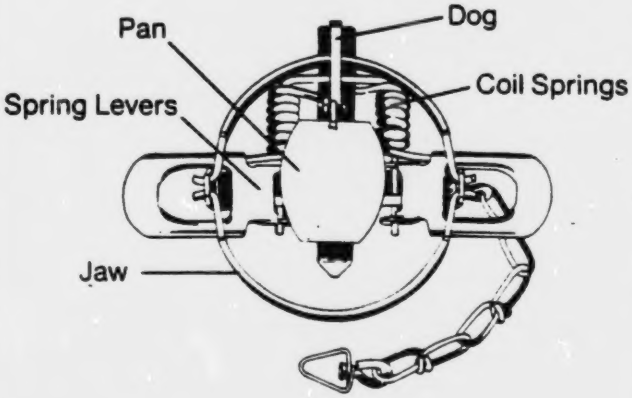
Long Spring Traps


Jaw
Frame
Pan
Dog
Cross
Spring

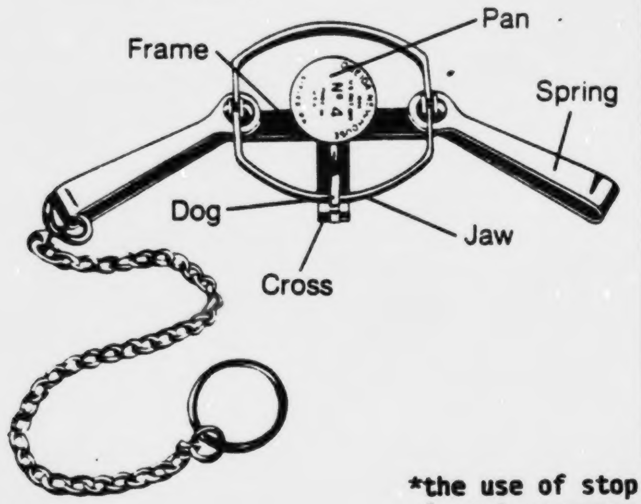
Jump Traps


Dog
Pan
Spring
Jaw

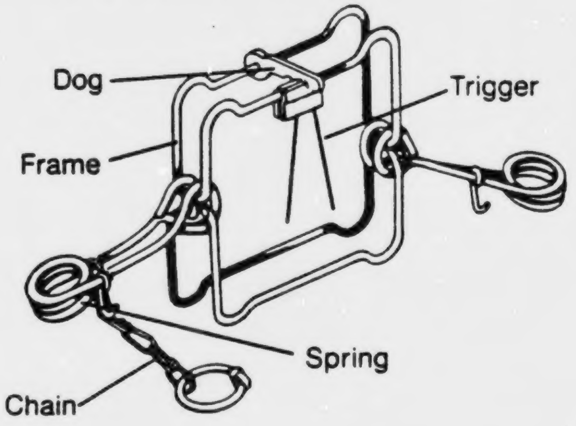
Coil Spring Traps


Pan
Dog
Coil Springs
Spring Levers
Jaw

Newhouse Traps

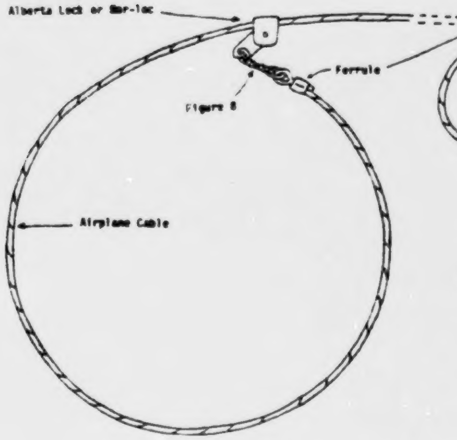

Pan
Frame
Spring
Dog
Jaw
Cross

Body-gripping Traps

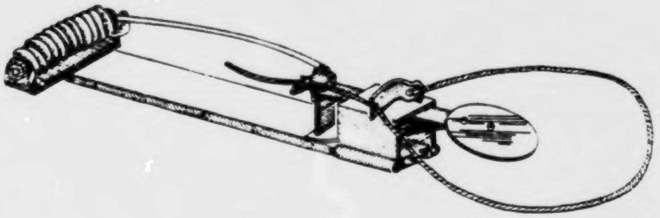

Dog
Trigger
Frame
Spring
Chain

*the use of stop loss and jump traps
is not recommended

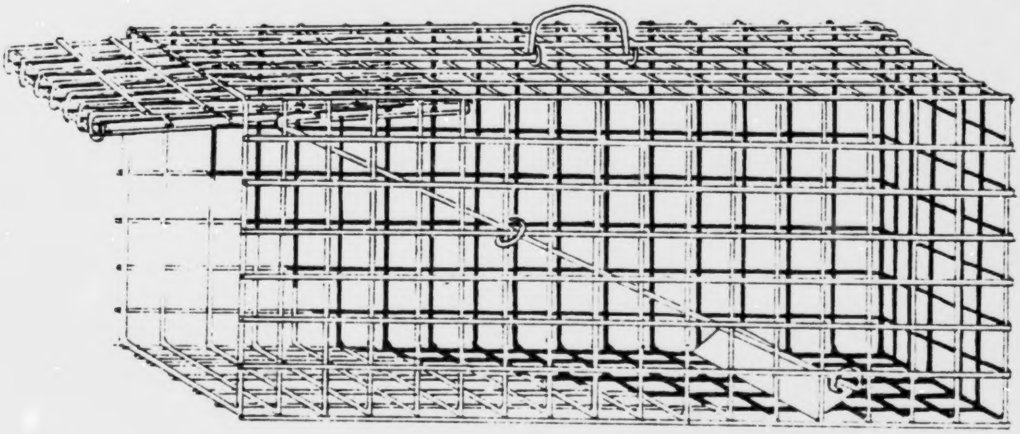
Capture Equipment


Alberta Lock or Bar-loc
Ferrule
Figure 8
Airplane Cable

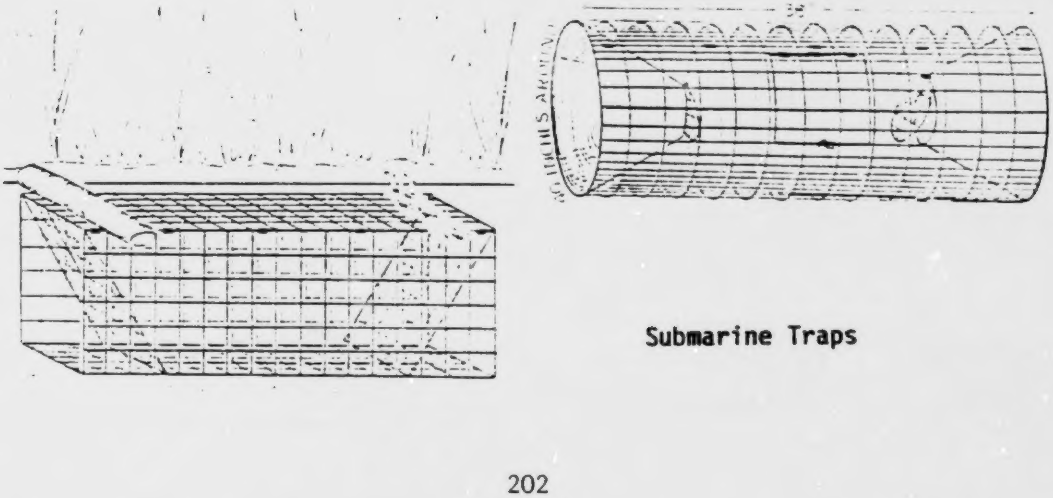
Snare



Foot Snare



Live Box Traps

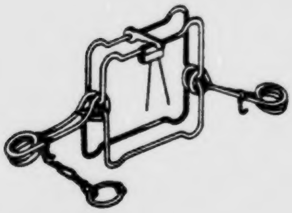

36"
30 INCHES AROUND

Submarine Traps

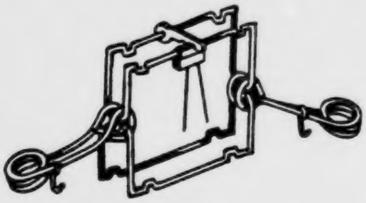
KILL-TYPE TRAP SIZES AND USE

FOR: FISHER, MARTEN, MINK, MUSKRAT

#160 CONIBEAR
Jaw Spread: 6"
No. Springs: 2

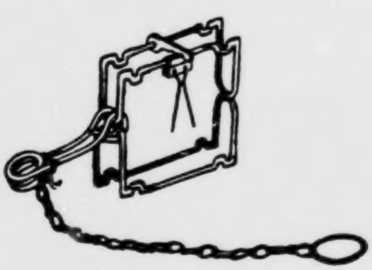


#175 NORTHWOODS
Jaw Spread: 6 1/2"
No. Springs: 2



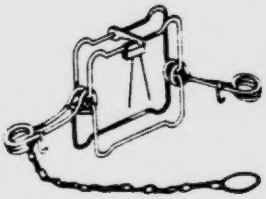
FOR: MUSKRAT (Underwater)

#150 NORTHWOODS
Jaw Spread: 6 1/2"
No. Springs: 1

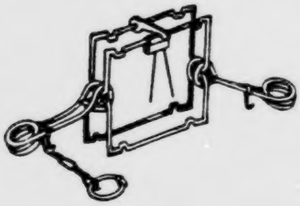


FOR: MINK, MARTEN, WEASEL, SQUIREEL, MUSKRAT

#120-2 CONIBEAR
Jaw Spread: 4 1/2"
No. Springs: 2

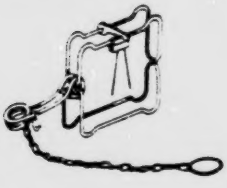


#120 NORTHWOODS
Jaw Spread: 5"
No. Springs: 2

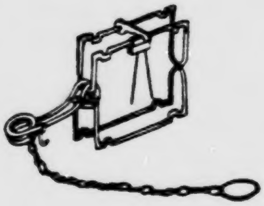


FOR: MUSKRAT (Underwater fixed position), SQUIRREL

#110-2 CONIBEAR
Jaw Spread: 4 1/2"
No. Springs: 1



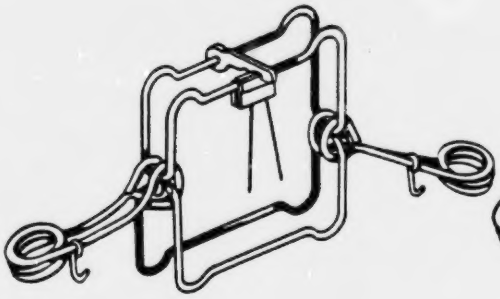
#100 NORTHWOODS
Jaw Spread: 5"
No. Springs: 1



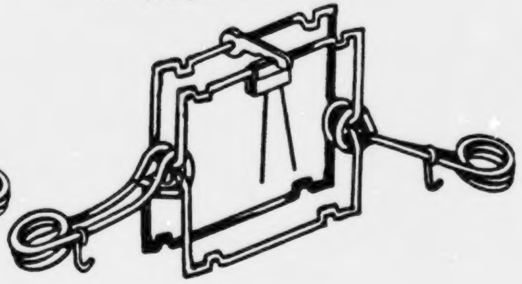
KILL-TYPE TRAP SIZES AND USE

FOR: BEAVER, OTTER (underwater only), LYNX, BOBCAT, WOLVERINE

#330 CONIBEAR
Jaw Spread: 10"
No. Springs: 2

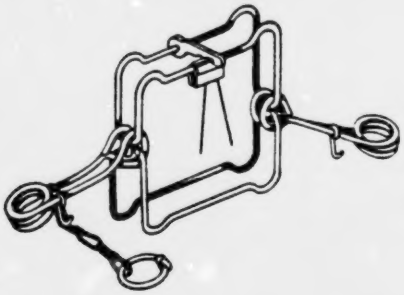


#300 NORTHWOODS
Jaw Spread: 10"
No. Springs: 2

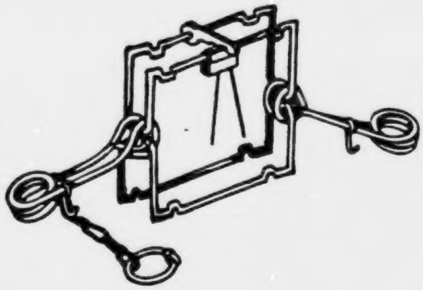


FOR: WOLVERINE, BADGER, OTTER, LYNX, BOBCAT, BEAVER, RACOON, SKUNK

#280 CONIBEAR
Jaw Spread: 8"
No. Springs: 2

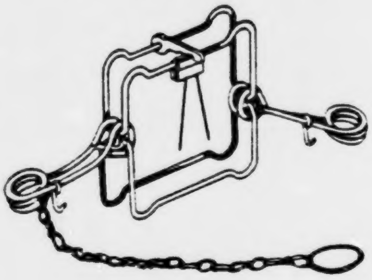


#250 NORTHWOODS
Jaw Spread: 8"
No. Springs: 2

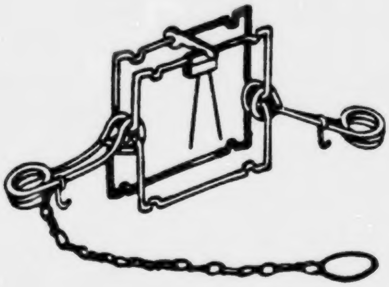


FOR: FISHER, MUSKRAT (underwater), OTTER, BADGER, SKUNK, RACOON

#220-2 CONIBEAR
Jaw Spread: 7"
No. Springs: 2



#200 NORTHWOODS
Jaw Spread: 7"
No. Springs: 2



INSTRUCTIONS FOR SETTING the

TRAP

Developed in the far north after 30 years of experimenting by a professional trapper. Perfected by the world's most modern trap manufacturer with over 100 years experience. This trap represents the first radical change in design since the 1848 Newhouse and is recognized as the first practical humane trap.

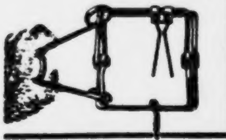
The Victor Conibear* offers new opportunities for increased fur yield. Being unique in size, shape and action it adapts to hundreds of improved sets to meet any condition and terrain. Illustrated are setting instructions as well as tested and proven sets for the Victor Conibear.

PRIME POINTS . . .

1. Lightweight
2. Compact
3. Simple to set
4. Easy to stake down
5. Positive in operation
6. Adjustable trigger
7. Quick kills
8. No pelt damage

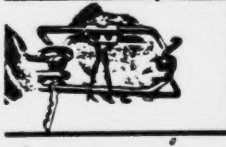
* Pats. Pending

NO. 110



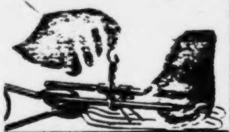
1

Grip and depress spring



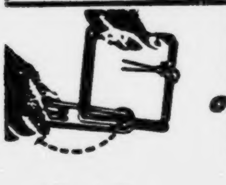
2

Open jaws of trap with other hand; keeping spring compressed



3

Hold open jaws with one hand. Adjust position of trigger and dog. Set trigger in preferred notch, pushing dog to secure.

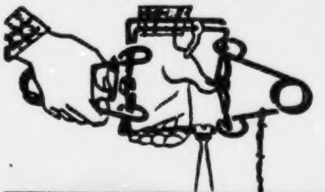


4

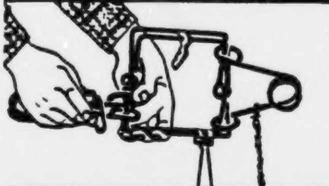
Still gripping trap, move spring to either side for desired setting position.

How to Set No. 120
Conibear Trap

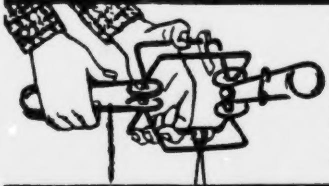
(important, always handle trap with dog on top)



Compress Spring with Safety Clip. Note position of both hands.



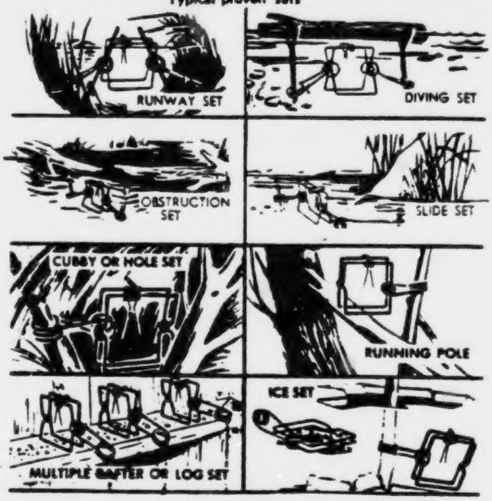
Hook Safety Clip ... Thumb and fingers of one hand holding spring.



Turn Trap. Compress other spring opening jaws of trap with other hand.

Set trigger in preferred notch. Place trap and release safety clip.

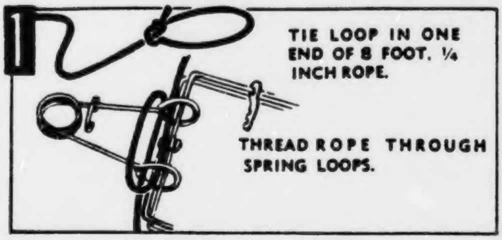
Typical proven sets



INSTRUCTIONS FOR SETTING
NO. 222 & 330

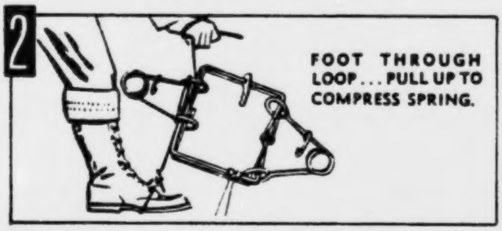
BEAVER and OTTER

TRAP

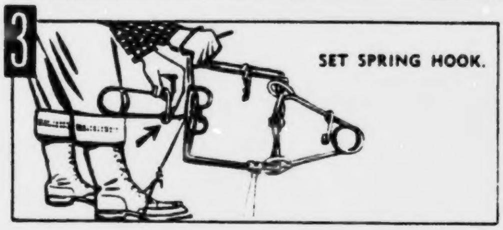

1

TIE LOOP IN ONE END OF 8 FOOT, ¼ INCH ROPE.

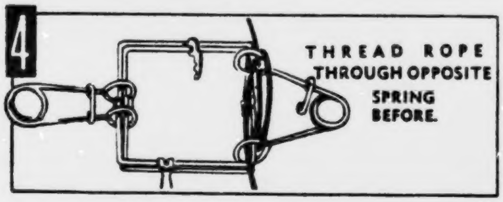
THREAD ROPE THROUGH SPRING LOOPS.


2

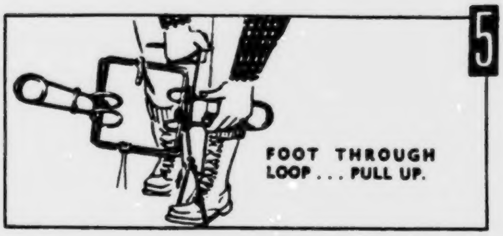
FOOT THROUGH LOOP . . . PULL UP TO COMPRESS SPRING.


3

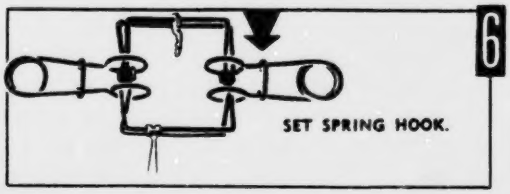
SET SPRING HOOK.


4

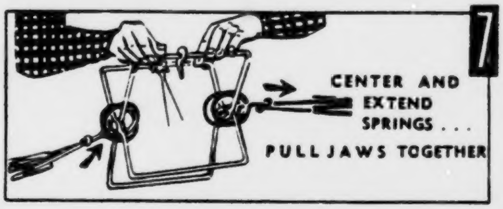
THREAD ROPE THROUGH OPPOSITE SPRING BEFORE.


5

FOOT THROUGH LOOP . . . PULL UP.

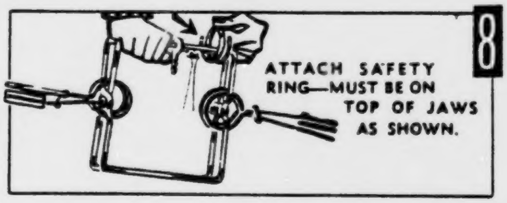

6

SET SPRING HOOK.

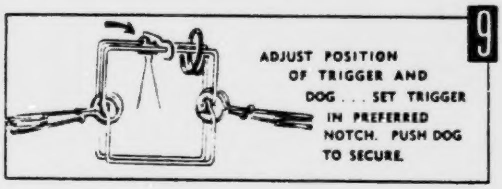

7

CENTER AND EXTEND SPRINGS . . .

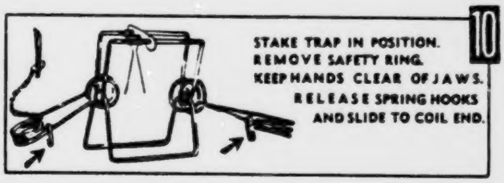
PULL JAWS TOGETHER


8

ATTACH SAFETY RING—MUST BE ON TOP OF JAWS AS SHOWN.


9

ADJUST POSITION OF TRIGGER AND DOG . . . SET TRIGGER IN PREFERRED NOTCH. PUSH DOG TO SECURE.


10

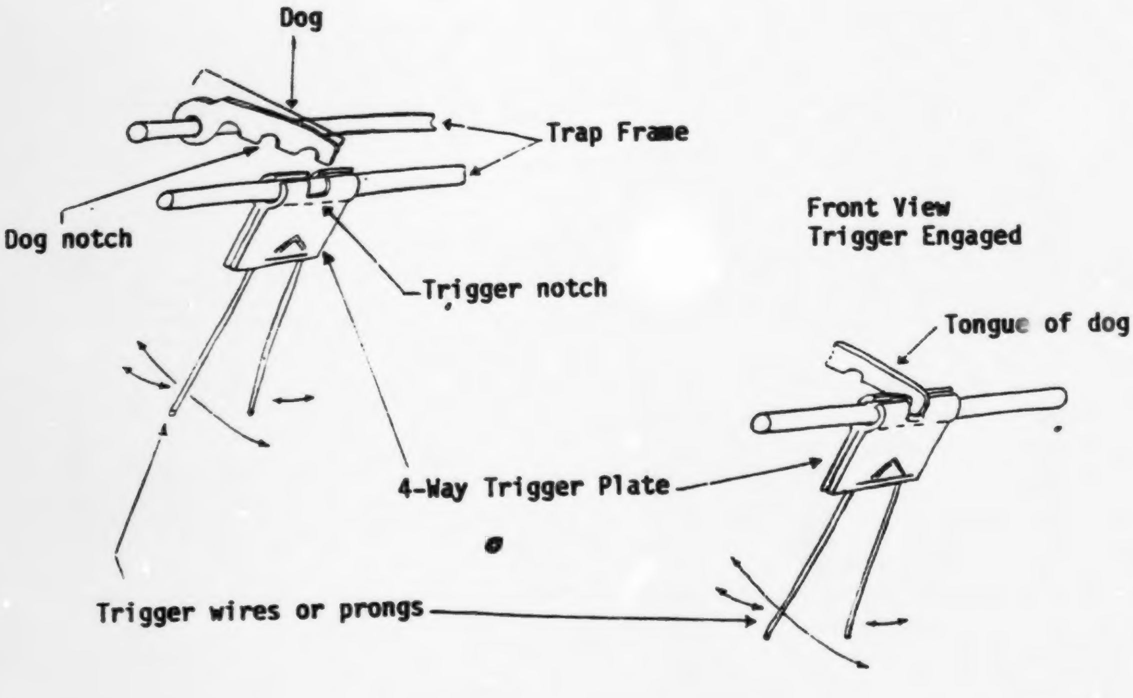
STAKE TRAP IN POSITION. REMOVE SAFETY RING. KEEP HANDS CLEAR OF JAWS. RELEASE SPRING HOOKS AND SLIDE TO COIL END.

DETAILS OF TRIGGER MECHANISM ON BODY GRIPPING TRAPS

Most new body grip traps will need little or no adjustments. However, at times, the plate where the trap dog is placed may be too shallow. This will prevent the trap dog from holding when the trap is set and allow it to spring shut.

To overcome this problem, it may be necessary to squeeze the 2 halves of the trigger plate together whth a hammer or pliers, or in some cases, pry the 2 halves a little further apart to get the proper adjustment. In other cases, it may be necessray to remove the trigger plate from the trap and file the notch a little deeper. Be sure not to get the notch too deep as this will lower it away from the dog and give too much "free play" on the trigger so it will have to move too far to spring the trap. Check and make these adjustments before going into the field.

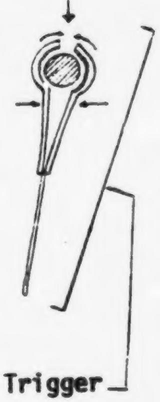
Front View of
Recommended Trigger

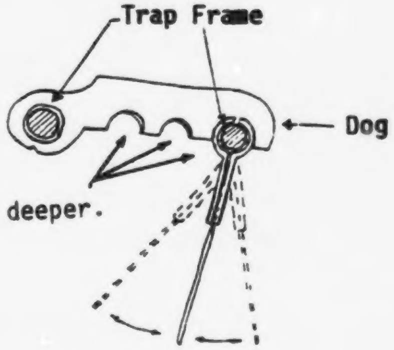

Dog
Trap Frame
Dog notch
Trigger notch
Front View
Trigger Engaged
Tongue of dog
4-Way Trigger Plate
Trigger wires or prongs

Conibear - Trigger Modification

Side View

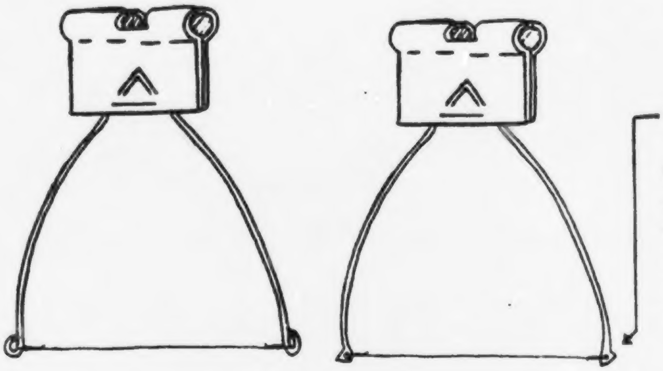
Force this slot open with knife or axe edge, to stiffen trigger pull, the more its opened, the greater play in the trigger





Notches in dog may be filed deeper.

Trigger tilt or movement to spring the trap

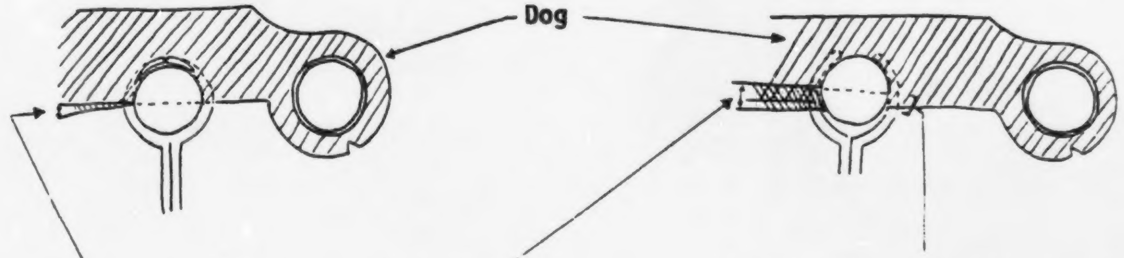


To eliminate sprung traps

Bend the trigger wires at the tip as shown or hammer ends of trigger wire to allow a small hole to be drilled in each. Connect two holes uing 10 lb. test monofilament fishing line or fine wire.

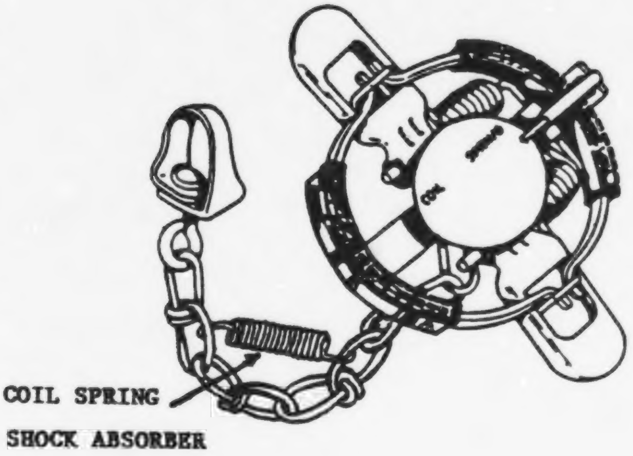
Hair Trigger Position

Slow trigger position



This much play in trigger

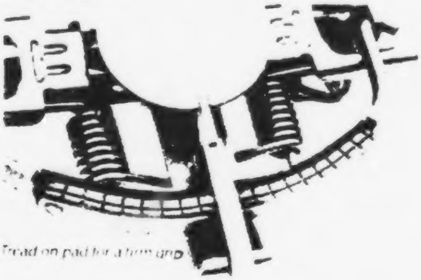
Lowering dog will also lower tongue past centre of jaw



Coil Spring Padded Trap

The Soft Catch pads are set in deep offset jaws to minimize compression while securely holding your catch. The pads are a unique blend of synthetic materials which remains soft and pliable down to -45°C. Yet they can be immersed in boiling water during trap dying with no harmful effects. The pads are odorless and will not absorb odors.

Superior holding power is achieved two ways.

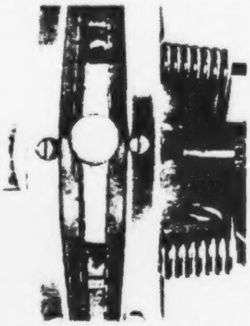


Tread on pad for a firm grip

First, the inside surfaces of the pads have a tread, much like that found on an automobile tire, that tends to hold, flow and mold itself around the foot, holding firmly to prevent even wet fur from slipping through the jaws. Second, the gripping surface of the pads is concave so that the pad edges roll in against the animal's foot, holding it without injury.

Metal jaws never touch fur.

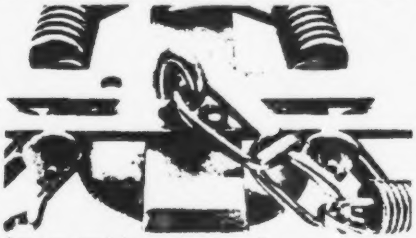
The Soft Catch pads are extra wide, so only the cushioned pad ever touches the valuable fur.



Concave surface hugs foot

Center-mounted chain helps prevent injury.

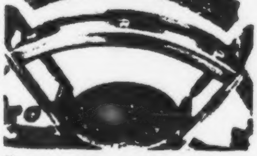
To further reduce pelt damage and self inflicted injuries every Soft Catch trap has its chain swivel-mounted to the bottom of the trap directly under the pan. This allows the trap to rotate with the animal to reduce the possibility of sideways shearing which can damage the animal's leg. In addition, a shock-absorbing spring attached to the chain reduces the possibility of dislocations due to lunging. And the heavy-duty swivel at the end of the chain will accommodate up to a ½" stake.



Center-mounted chain gives in one pull

Pads easily replaced.

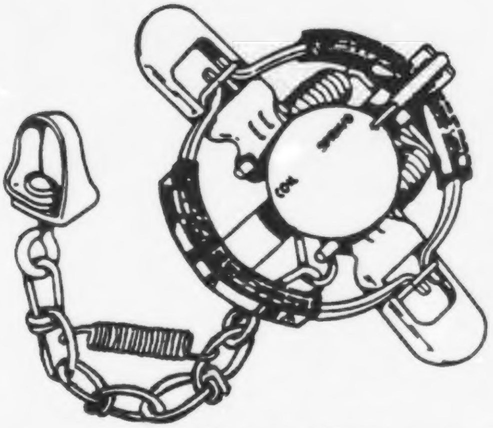
Tests under actual field conditions have shown that a set of Soft Catch pads will easily last through several trapping seasons. However, when new pads are needed, they can be quickly and easily installed. The only tool needed is a screwdriver.



Remove screws to replace pads

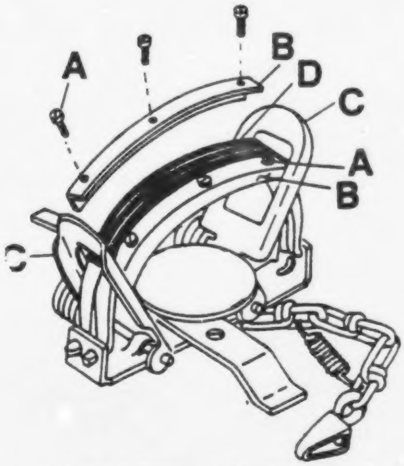
For now, Soft Catch traps come in two sizes. The #1½ for fox, coon, marten, fisher and bobcat. The #3 for coyote, lynx and bobcat.

These new traps have already been used extensively in Canada with excellent results. In fact, *Canadian Trapper* magazine has hailed them as "...a very welcome tool for harvesting."

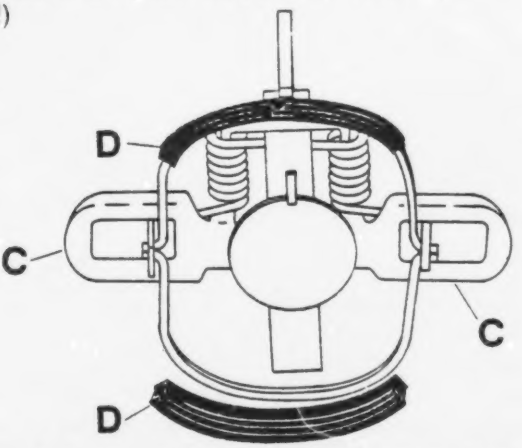


Coil Spring Padded Trap

INSTRUCTIONS
for replacing pads on animal restrainers

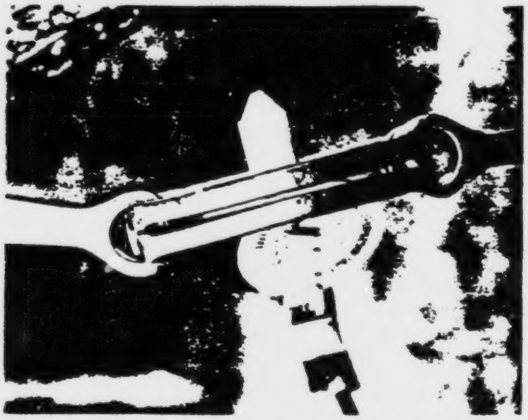


1. Remove screws (A) and pad retainers (B).
2. Place trap on ground; depress levers (C) by stepping on them.
3. Remove pads (D) and install new pads.
4. Release levers (C).
5. Replace pad retainers (B); be sure screw holes line up; replace and tighten screws (A). (Do not overtighten!)



Note: Grasp trap chain to pull stake from ground. Do not pull on jaws.

Trap Modification - OFFSET JAWED FOOT HOLD TRAPS AND CENTRE MOUNTING CHAIN

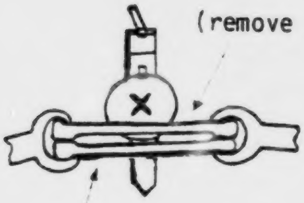


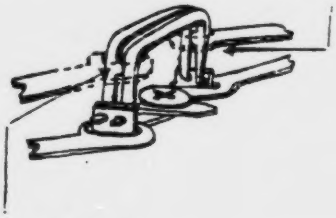
Manufactured offset jaw foot hold trap

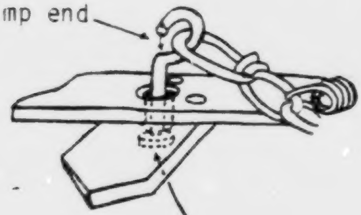
Offsetting the jaws of the trap reduces jaw impact and pressure, minimizing the chance of bruising and broken bones and permitting circulation to be maintained.

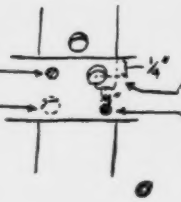
Manufactured offset jawed traps are available in some sizes, and offset jaws may be purchased as a spare part and installed in existent traps.

Or the trapper may modify his own traps by grinding the jaws or by welding a bead on each jaw as illustrated.


(remove 3/32" from each jaw)
ground jaws (be sure to round the edges)


welded bead
welded bead


Crimp end
Trap swivel inserted here

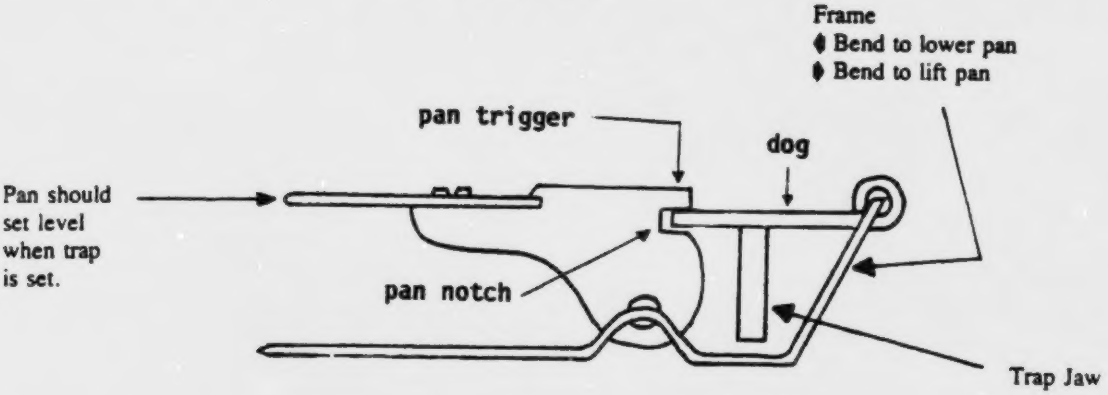

Weld spot
Drilled hole
¼"
Or may also drill here
Weld spot

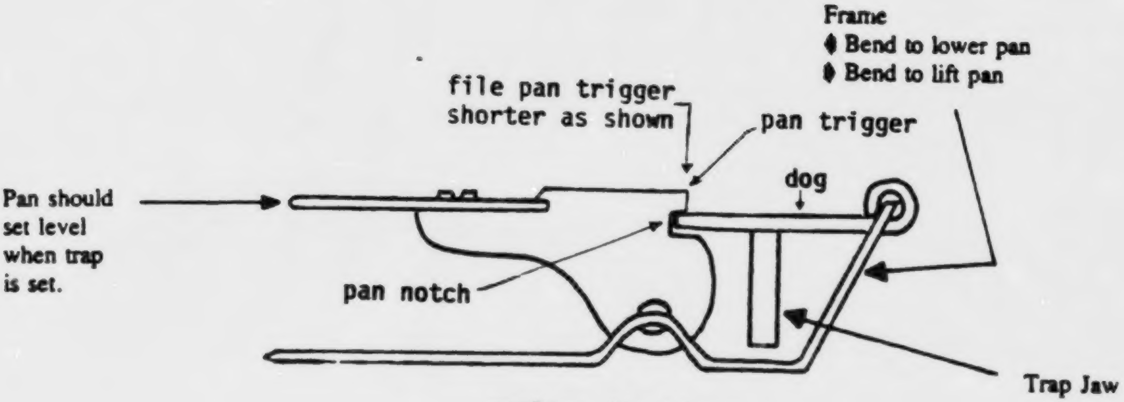
Chains can be changed to a centre mount position simply by drilling a 1/4" hole through the trap frame (as illustrated), inserting a trap swivel in place, hooking it through the chain and crimping it closed. Use a 3/16" trap swivel for #2 size trap ro smaller and 1/4" swivel for #3 size trap.

Trap Modifications

Pan Adjustment

unmodified trigger


Frame
↓ Bend to lower pan
↑ Bend to lift pan
pan trigger
dog
Pan should set level when trap is set.
pan notch
Trap Jaw


Frame
↓ Bend to lower pan
↑ Bend to lift pan
file pan trigger shorter as shown
pan trigger
dog
Pan should set level when trap is set.
pan notch
Trap Jaw

replace dog if worn

Trapping Accessories

There are many accessory items that should be included in every trapper's equipment supply. Some trappers may require certain additional items for specialized purposes or trapline conditions. It is up to the individual trapper to determine for himself which trapping accessories are necessary for his own trapline. The following is a checklist of trapping accessories:

- area map or aereal photos
- first aid kit
- survival kit
- compass
- waterproof matchbox
- flash light
- log book or diary
- sharpening tools
- chain saw
- pail
- ammunition
- axe
- swede saw
- ice chisel
- hammer
- nails
- rope
- wire
- needles
- thread
- trap dye and wax
- trap stakes and drags
- good trapping information book(s)
- shovel, spade or trowel
- trap parts and other spare parts
- scent, bait and lures
- comb and brush for fur
- conibear safety gripper
- flagging tape
- templates or patterns for forming boards
- shipping bags
- trap setter
- specialized clothing (ie: red coat and cap)
- rubber gloves (long and short)
- rubber boots/waders
- packsack and/or basket
- trap and snare treating container
- snare parts

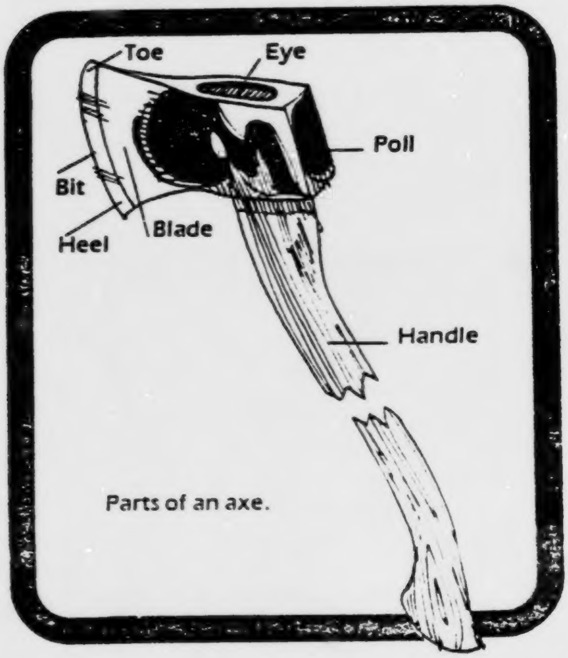
Axes

The modern outdoorsman will find an axe is his most useful tool. Besides felling trees and chopping wood for fire and shelter, a well sharpened axe can skin and clean game and, if necessary, the steel axe-head can be used with a piece of flint to start a fire.

Selection of Axes

Axes come in different sizes to perform many different jobs. Axes are categorized as small, medium and large according to the weight of the axe-head and the length of the handle.

A camp axe is a small axe with a head weighing about 2 or 2½ pounds (.8 kilo or 1 kilo) and a handle between 20 and 28 inches (50 cm to 71 cm) long. It will chop small to medium size logs easily and can be used for bigger jobs if the edge is kept razor sharp. The camp axe takes up very little space and is ideal when horsepacking or when camping in small quarters.



Parts of an axe.

No matter what size axe you choose, it should have a forged steel rather than cast steel head. Cast steel does not hold a sharp edge and breaks more readily than forged steel.

The best axes are made from high quality carbon steel which has been tempered to resist brittleness.

When selecting a wood-handled axe, be sure the grain of the wood is straight for the entire length of the handle. Hickory is considered the best wood for axe handles.

Care and Use of Axes

Replace a cracked or splintered axe handle. Do not attempt to patch it.

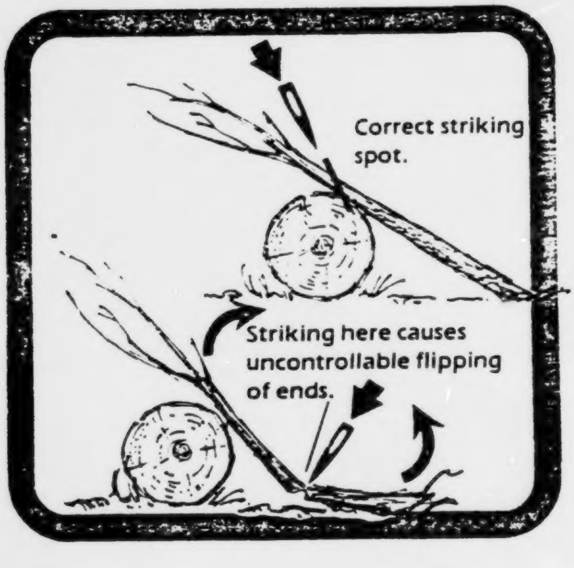
When replacing a wood axe-handle, cut off the old handle as close to the metal head as possible. The remaining wood can be dug out of the eye of the axe-head in small pieces. Insert the new handle in the eye and tap it into place. Cut two hardwood wedges and insert them in the axe-head next to the handle. Drive the wedges in as far as they will go so the handle is seated snugly in position and is as tight as possible.

To protect the handle, rub linseed oil into the wood of the handle along its entire length using a soft cloth. Never varnish or paint an axe-handle. Painted or varnished handles can cause your hands to blister.

If an axe-head is loose, do not use it until it has been tightened. You can tighten a loose handle by driving the hardwood wedges in further to fit more snugly, or you can soak the axe-head in water which will cause the wood to swell and the handle will then fit more tightly.

In extremely cold weather, always warm an axe before starting to cut. Cold makes the metal brittle which could cause the axe-blade to snap.

When using an axe, always work on a chopping block. A stump or log makes a satisfactory chopping block.


Correct striking spot.
Striking here causes uncontrollable flipping of ends.

Always be sure no one is standing in line with the swing of your axe. Be careful when using an axe to insure that the area of the entire swing is clear of all obstructions.

Sharpening an Axe

A dull axe is dangerous. A sharp blade will bite into a log, but a dull edge may glance off the mark and cause a serious mishap.

To sharpen an axe you will need a file, and if available, a vise. Place the axe-head in a vise with the blade up. Clamp the axe-head in the vise close to where the handle is inserted in the eye. Holding the file flat, file from the eye along the entire edge. File on the outgoing stroke only, maintaining the same pressure and the same angle throughout the stroke. Turn the axe-head to the opposite direction to file the other side of the blade. Be sure to file both sides evenly.

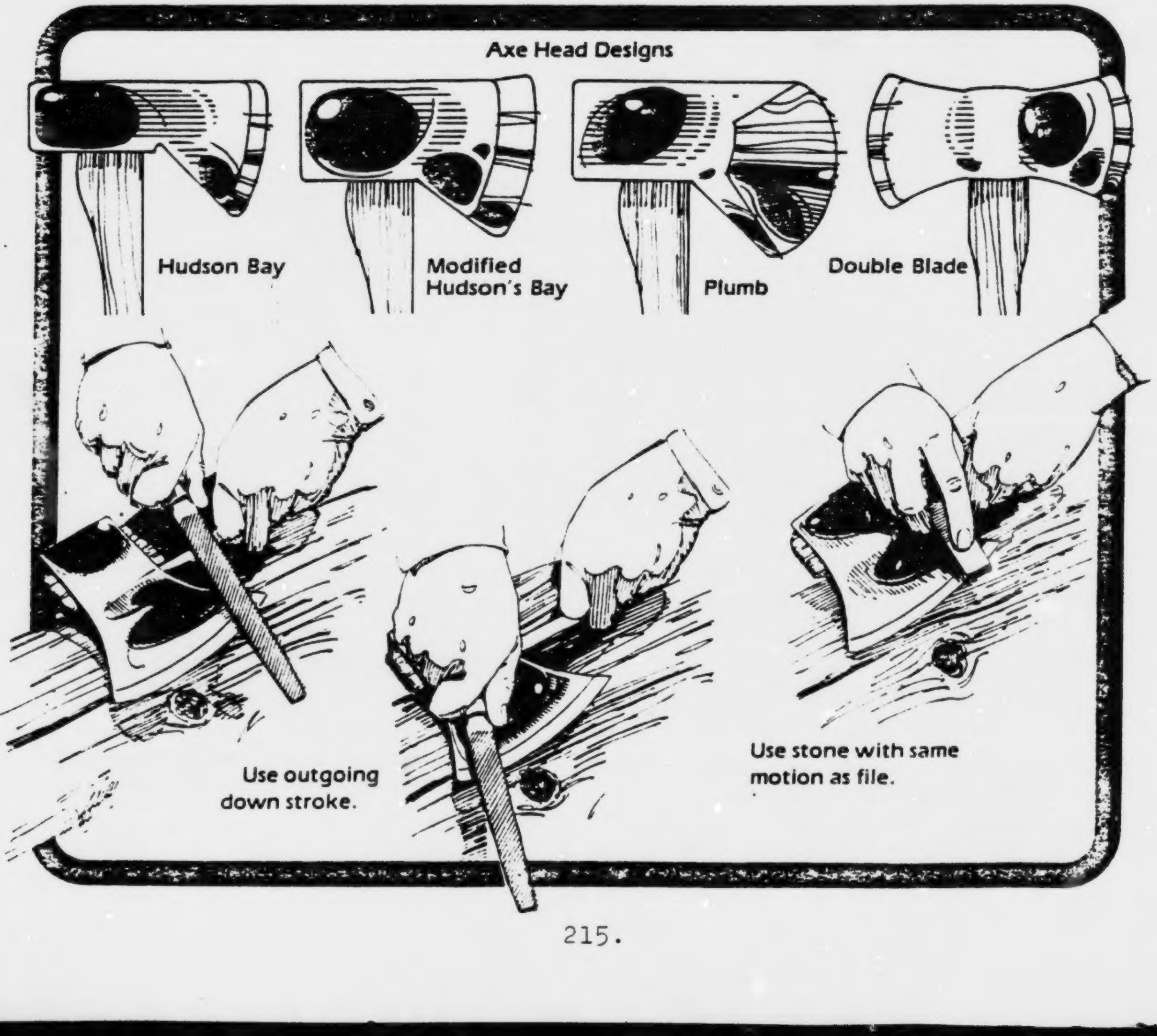
In the field, where a vise is not available, extend the edge of the blade over a log or stump and hold the axe-head securely with your knee or foot while you file.

To check if you have sharpened the blade evenly, sight down the edge. There should be a fine bur on the blade edge. If you notice any bright or white spots, file the edge again until these dull patches disappear.

A final rubbing with a fine emery stone will hone the edge to razor sharpness.

An axe should never be thinned, that is, ground or filed to a thinner shape than when it comes from the factory. Grind or file the axe in a fan-shape, leaving a little more metal at the corners. The cutting edge of an axe should be rounded, not wedge-shape. The rounded edge will throw wood chips outward, away from the blade.

An axe is the outdoorsman's most useful tool. Select a quality axe and care for it properly. Keep it sharp. Take proper care of the handle, keeping the head tight and the handle smooth. Never use your axe to drive or pound on anything more than a tent peg. Axes are not designed to be used as a sledge hammer or as a wedge and should not be used for these purposes. With care, an axe will give the outdoorsman years of useful service.



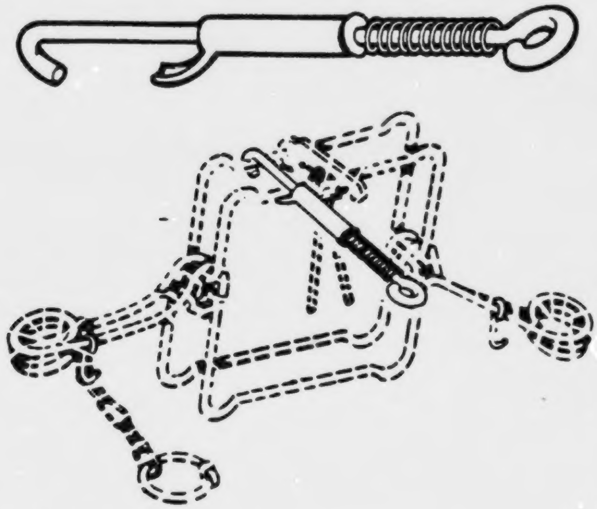
Axe Head Designs

Use outgoing down stroke.

Use stone with same motion as file.

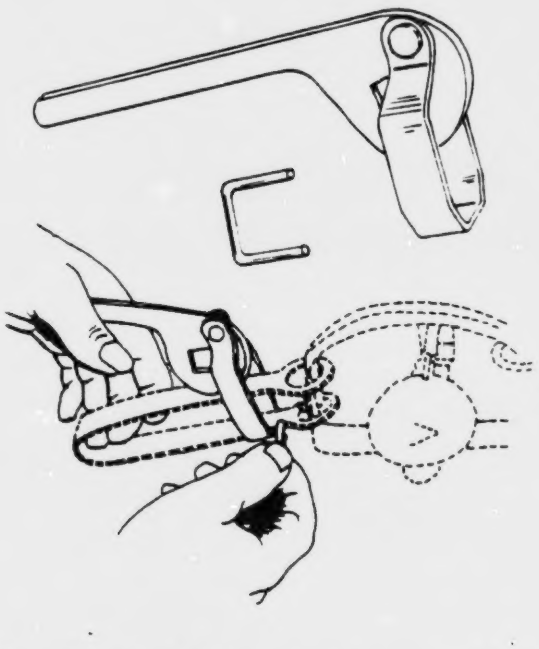
Trapping Accessories

Safety Gripper



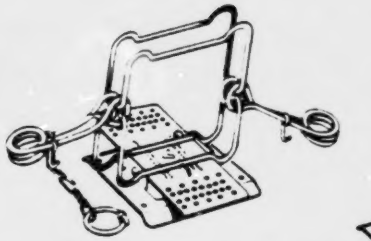
Safety-Gripper lets you make sets easily and safely!

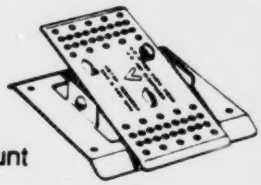
Jiffy Trap Setter and Yoke



Use with long-spring traps up to and including #4. Tool compresses spring. Yoke is then placed on spring to keep it compressed after tool is removed.

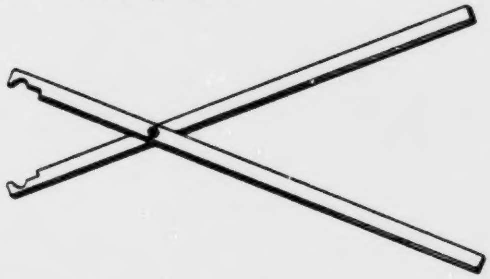
Selective Positioning Mount





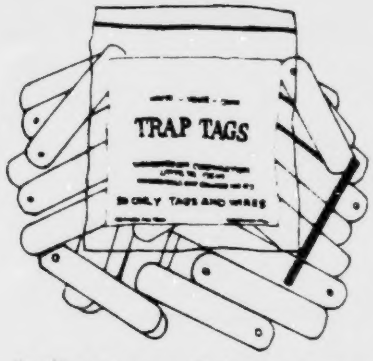
Selective Positioning Mount (SPM) converts traps to pan operation.

Trap Setting Tool



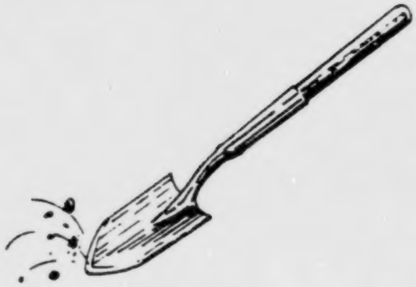
Use with long-spring and Conibear traps of all sizes. This 15" tool applies strong leverage on the trap spring where it works the hardest, not near the hand so the trapper is able to compress the spring easily.

Trap Tags

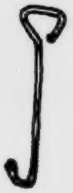


"write-your-own" zinc tags are a convenient way for trappers to attach their name and address to traps.

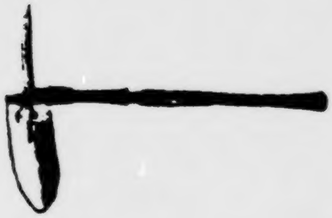
Trapping Accessories



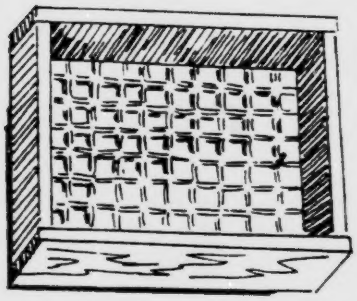
Shovel



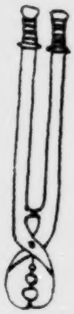
J-TYPE SETTER
FOR BODY TRAPS



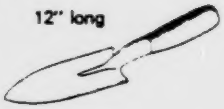
Shovel and Pick Combo



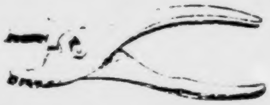
Sifter



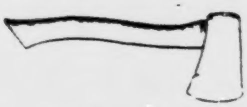
Ferrule crimper



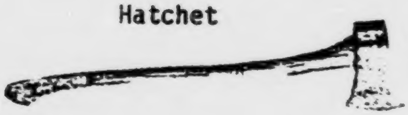
Trowel



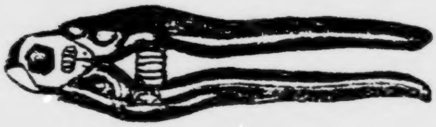
Pliers



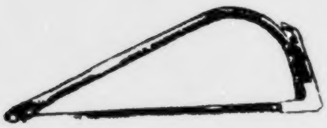
Hatchet



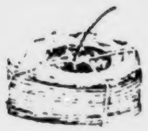
Axe



Wire Cutters

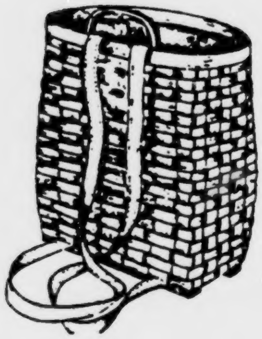


Saw

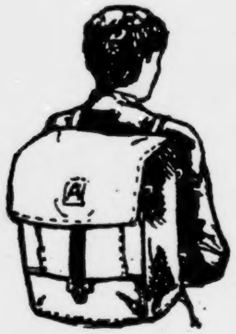


Cord

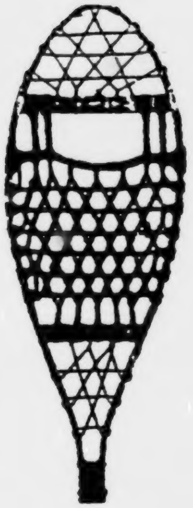
Trapping Accessories



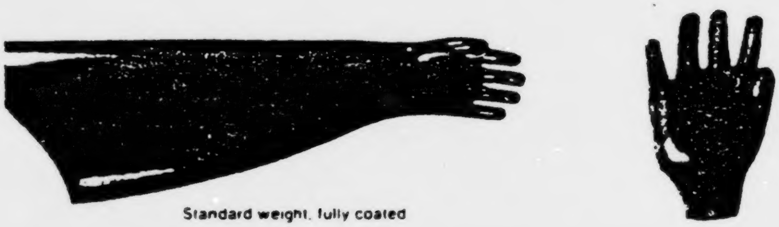
Pack Basket



Pack Sack

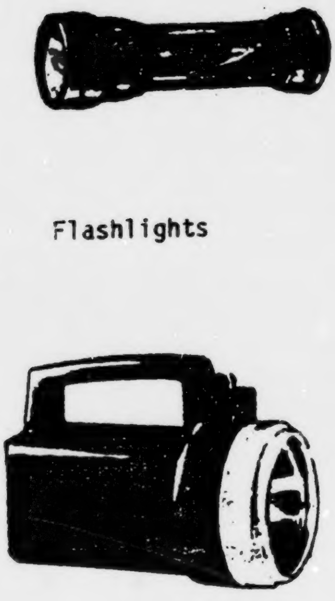


Snowshoes

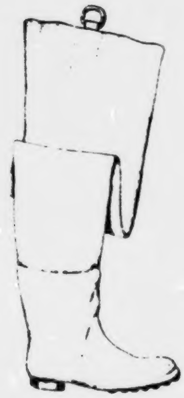


Standard weight, fully coated

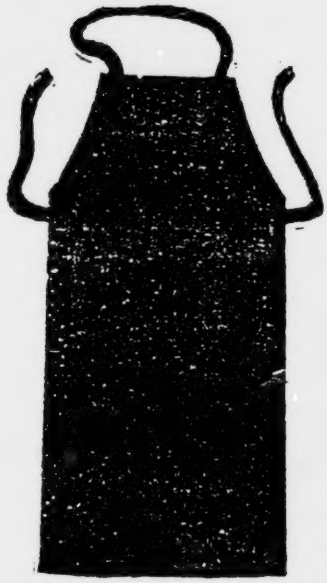
Rubber Gloves



Flashlights

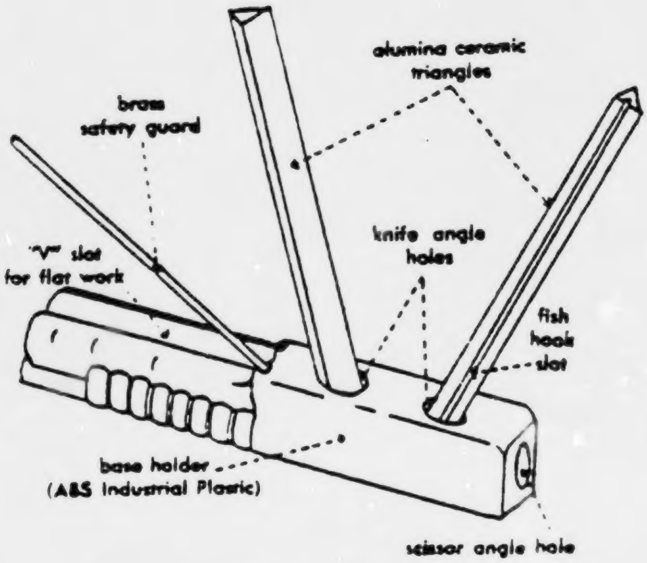


Hip Waders

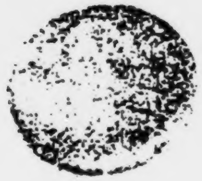


Skinning Apron

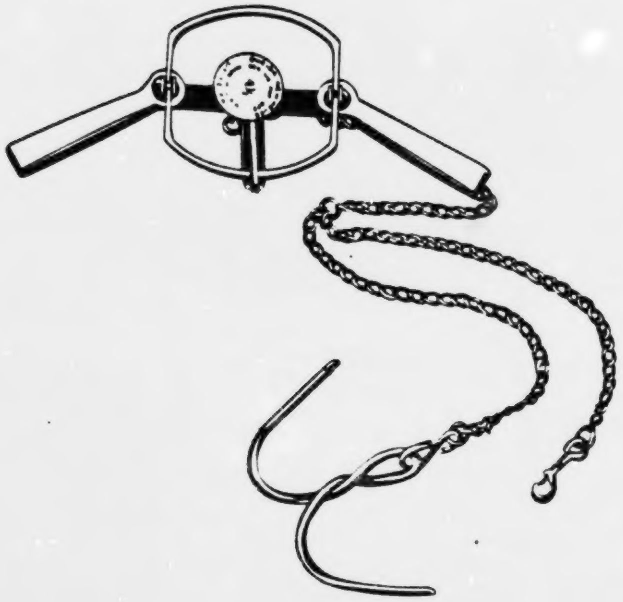
Trapping Accessories


alumina ceramic triangles
brass safety guard
"V" slot for flat work
knife angle holes
fish hook slot
base holder (ABS Industrial Plastic)
scissor angle hole

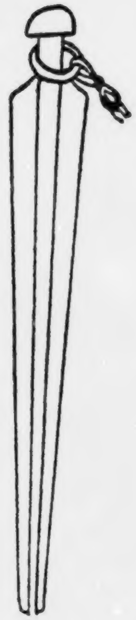
Sharpening stone



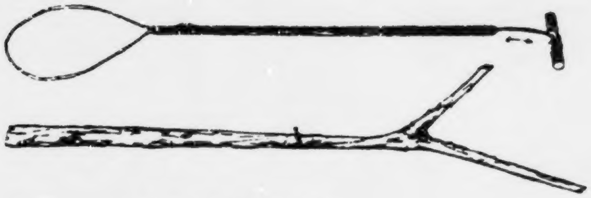
Axe, Sharpening Stone



Drag Chain and Grapple Hook



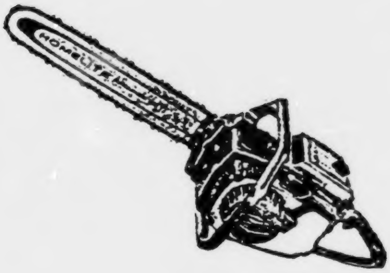
Trap Stake



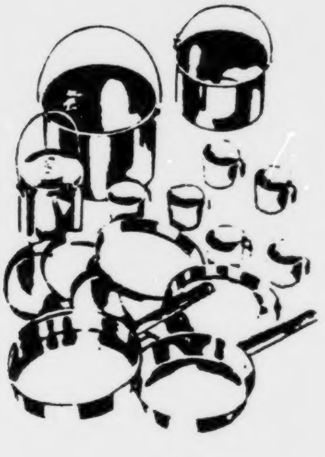
Noose and Forked Stick

Trapping Accessories

Rifle



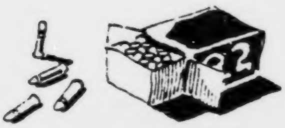
Chain Saw



Pots

Bedroll

CUTTER
Travel Pack
SURVIVAL KIT

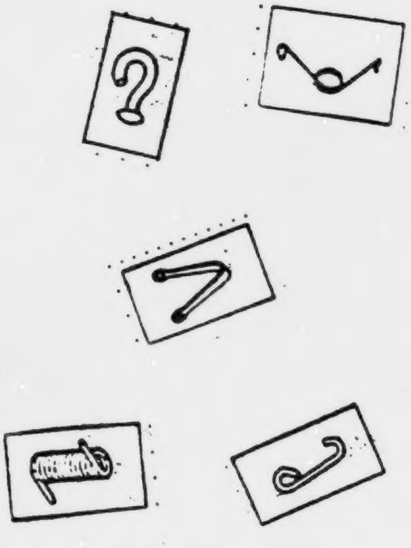


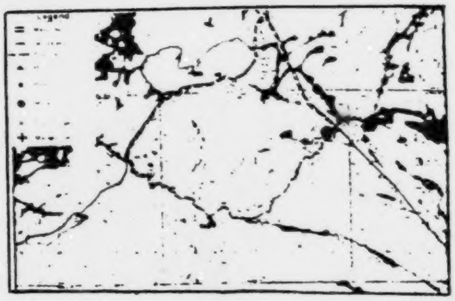
Ammunition

Lures

CUTTER Trail Pack
FIRST AID KIT

Compass

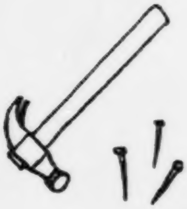


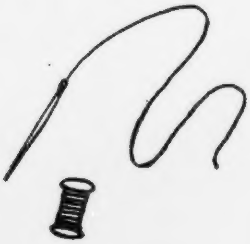


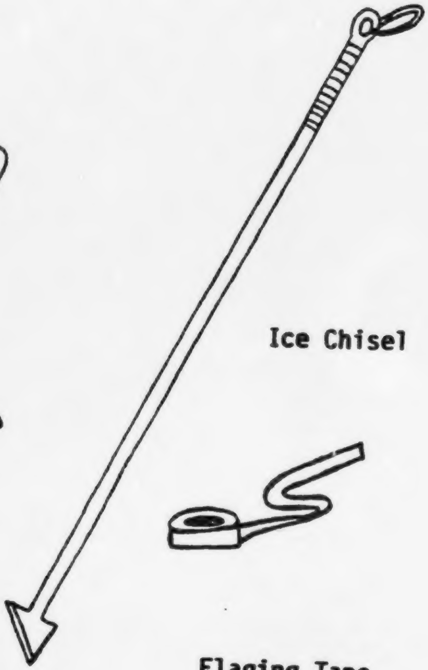
Maps

Trap Parts

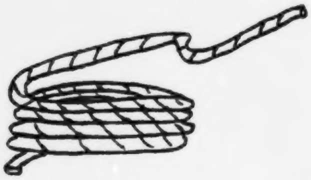
Trapping Accessories


Hammer and Nails

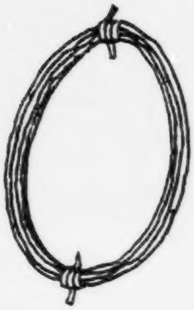

Needle and Thread

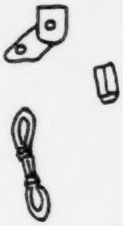

Ice Chisel

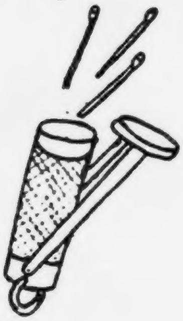
Pail

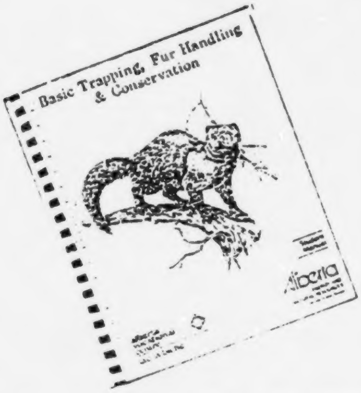

Rope

Flaging Tape

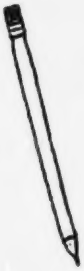

Wire


Snare Parts


Waterproof Match Case


Basic Trapping, Fur Handling & Conservation
Alberta
Trapping Manual

RECORD BOOK + DIARY


Pencil

Fur Handling Equipment

Good fur handling equipment will make the job of pelt preparation much easier and will help to ensure that the trapper gets the full value from the fur.

The selection must be judged by the individual trapper based on the species and quantities of these species that he is likely to harvest.

The following is a checklist of fur handling equipment:

- fur forming and drying boards (see templates or diagrams for proper size for each species)
- flat board with patterns or hoops (for open pelts)
- one piece boards (for cased pelts)
- split boards (ie: two-piece for cased pelts)
- bags (to carry dead animals)
- knives, fleshers, scrapers, tail stripper, tail splitting guide
- skinning gambrel (for handling animal while skinning)
- push pins
- belly sticks
- leg boards and tail boards
- fleshing beams (large, medium, small)
- other special skinning tools
- sharpened bones
- utility knife (with small, hooked blade)
- paint scraper (cut and formed to skin beaver)
- special needles and thread

Forming and Drying Boards

The purpose of the forming and drying board is not to stretch the pelt to its maximum size, but rather to hold the pelt in its natural form while the pelt dries.

If the pelt is not formed or dried properly, it will either be overstretched or be shrunken, wrinkled and spoiled. Either way, its value will be greatly reduced. The trapper should remember that he cannot improve on what nature produced, but that through poor handling, the value of a pelt can be reduced or entirely lost.

Cased pelts are formed and dried on either a solid or split board. If a single board is used, a belly stick should be inserted to ensure free air circulation and to allow for easy removal of the pelt (as it shrinks and tightens during drying).

Split boards are usually used for the larger cased pelts and do not require a belly stick.

Wire frames can be used for muskrat, raccoon, squirrel or weasel but are not as desirable as wooden boards. All boards should be carefully sanded smooth and the edges rounded. They should also be free of knots or other irregularities on the outer edges. The boards must be the proper shape, size and thickness (see diagram).

Boards for open pelts can be made from a sheet of 1/2" plywood. One 4' X 8' sheet makes 3 boards, and both sides are used (ie: 6 nailing surfaces. See diagrams on how to use the templates.) If small diameter nails are used, the boards will last much longer. Hoops are sometimes used where it is very inconvenient to transport plywood to the trapping location.

Fleshing Beams

Although fleshing can be done on a forming board or even on one's knee, the job is accomplished much more quickly and easily with the use of a beam. For some pelts such as raccoon, badger and wolverine it is a virtual necessity. The surface of the beam must be perfectly smooth, as any irregularities may result in a cut pelt. Several styles of beams are shown in the accompanying diagrams.

Knives and Sharpening Stones

Knives must be made of a good quality steel that will hold an edge as the knife must be kept sharp. It is best to have several knives for various purposes - one for initial cuts, cutting off feet, etc., one for cutting near bone, one for skinning, etc. Cutting near bone quickly dulls a knife edge, so in order to keep the general skinning knife sharp, avoid using it for this purpose.

The trapper should be always on the lookout for better knives to improve his fur handling.

Always carry a sharpening stone on the trapline if you do any skinning there. Use a fine stone or steel, and strap the blade to finish the edge.

Fleshers

Fleshers should not be overly sharp; experience will indicate the proper edge. A straight flesher is used on a beam, and a bone or square flesher on a flat board (see drawings).

Other Fur Handling Items

The longer you trap, the more items you will collect in order to make your fur handling easier and better. Push pins are faster than nails but nails should be used for boarding beavers. Tail strippers and splitters are well worth the small cost of purchase. For health reasons, it is a good idea to use surgical gloves.

At the end of the season, everything should be stored in good condition. Before the start of the next season, new boards should be made or old ones repaired; be sure you have enough. Sharpen knives, stock up on pins, nails, etc.

Transportation & Living Accommodations

Be sure all transportation equipment and accommodation is in good repair before the start of the season.

The selection of equipment here is largely a matter of personal preference, but trapline conditions or expense may dictate what is to be used.

Snow machines can be a valuable asset in many areas, but be sure you know their general maintenance and select a machine that is suitable for hauling a sled through bush trails.

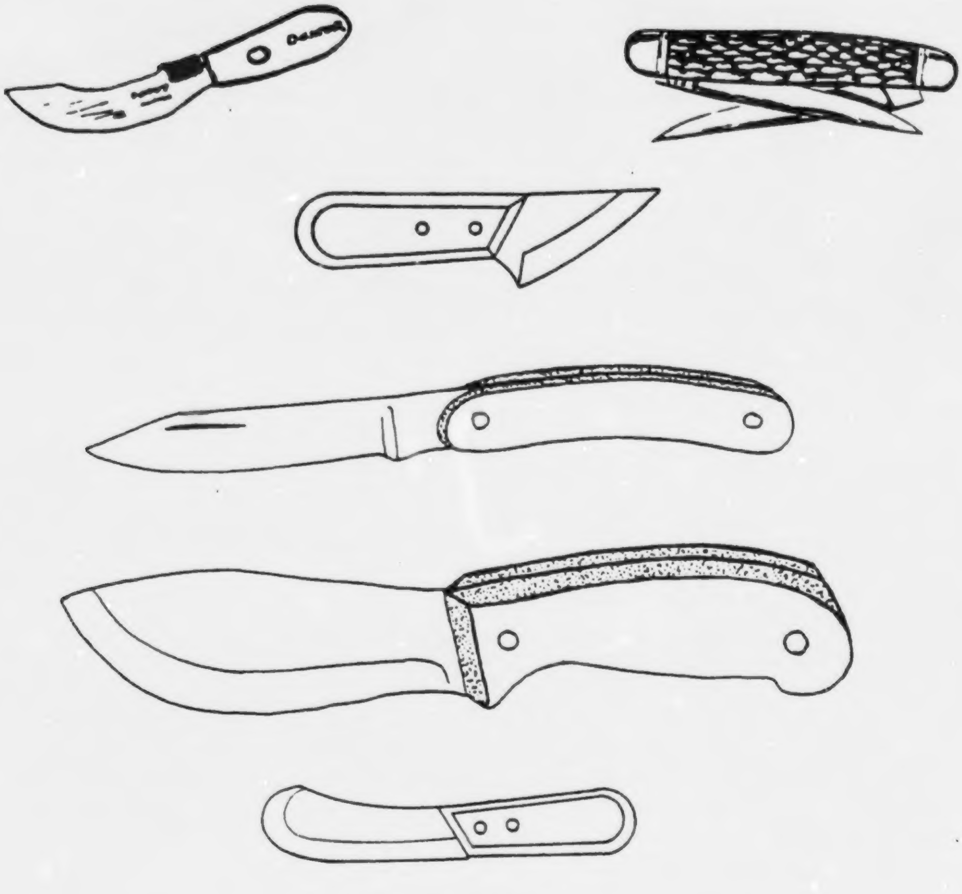
Keep in mind that the cost of a truck or other major items may be partially offset as a tax deduction.

A canoe and snowshoes are also investments that can pay off.

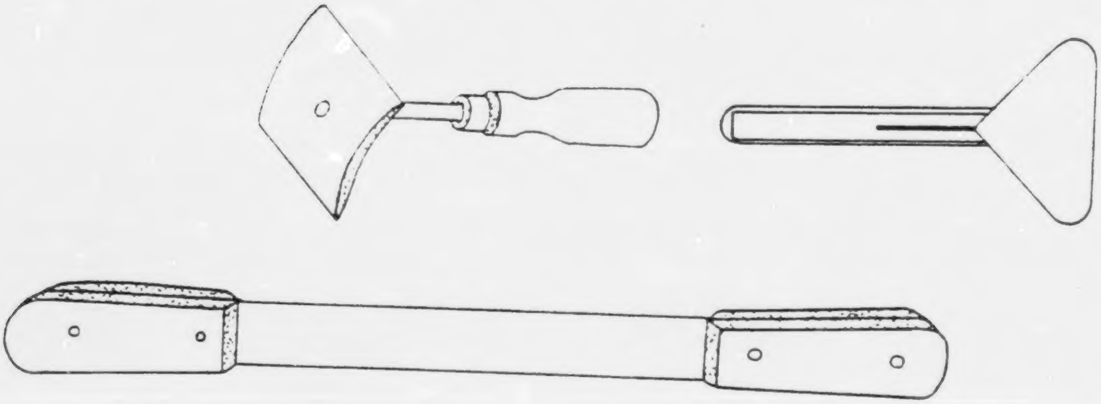
Many trappers find it is more convenient and safe to have several line camps even if some of these are only shack tents. They can also trap their lines more effectively with several camps.

With these large, expensive items, it is especially important to keep economy and efficiency in mind. Don't buy more than you can afford or need. On the other hand, modern equipment can help to ensure success. The trapper is much like a farmer - both harvest a crop. Farmers have found that it is more efficient to use tractors than horses.

Fur Handling Equipment



Skinning Knives



Fleshers

Sharpening a Knife

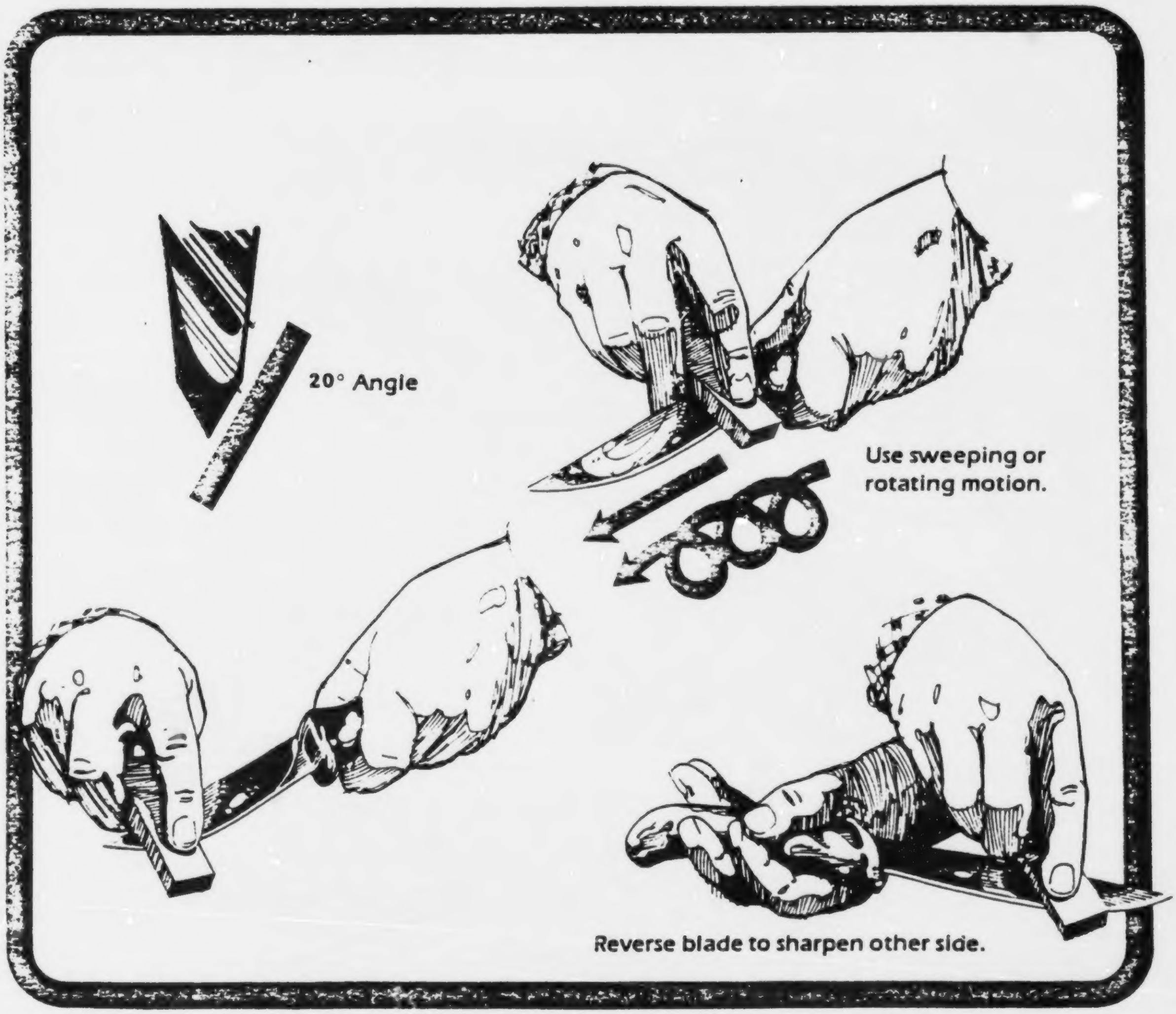
Knives must be kept sharp to perform their functions properly. Present day sharpening and grinding implements include a variety of electric-powered wheels and abrasive stones. Great care must be taken when using power equipment. In inexperienced hands, these grinders and sharpeners can do more harm than good. Most power sharpening and grinding devices produce a great deal of friction which generates very hot temperatures. Over-heating will "draw" the temper, thereby ruining the blade, which will never hold a keen edge again. There is a danger too, that an inexperienced person may grind away too much of the blade.

The safest method for the average person is to use a sharpening stone. Keep the stone wet using a honing oil or any fine grade oil. Holding the stone in one hand and the knife in the other, keep the blade at about **20** degree angle to the stone. Start at the knife handle end of the blade and, in a sweeping motion, rub the stone against the blade to the tip. Turn the blade over and sharpen the other side. Maintain an even pressure and the same angle consistently throughout the sharpening process.

To test if the edge is completely sharpened, run the blade edge lightly over the tip of your fingernail. The edge of the blade should grab at the fingernail. If the blade slips at any spot on its edge, continue to rub the blade against the stone a few more times.

For a razor sharp finish to your blade, you can give it a final stropping on a strip of heavy leather rubbed with jeweller's rouge.

Many sportsmen carry a sharpening steel with them to touch-up the edge on their knife between proper sharpenings.

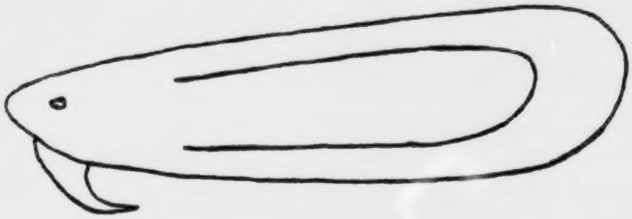


20° Angle

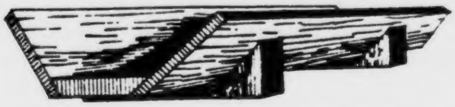
Use sweeping or rotating motion.

Reverse blade to sharpen other side.

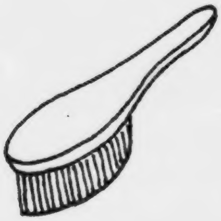
Fur Handling Equipment



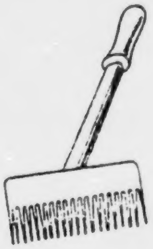
Utility Knife



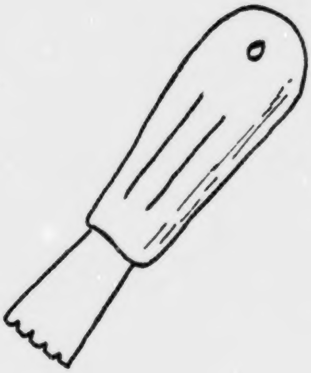
Skinning trough



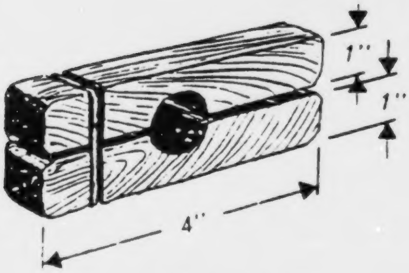
Brush



Comb

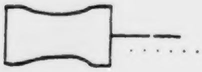


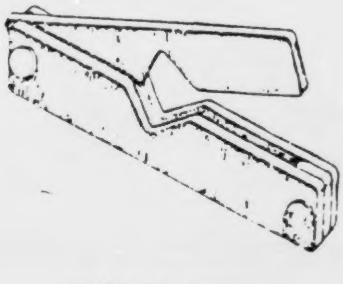
Paint Scraper



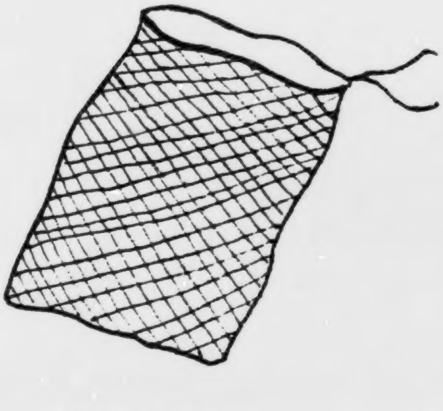
Tail Stripper

Push Pins (aluminum 5/8")



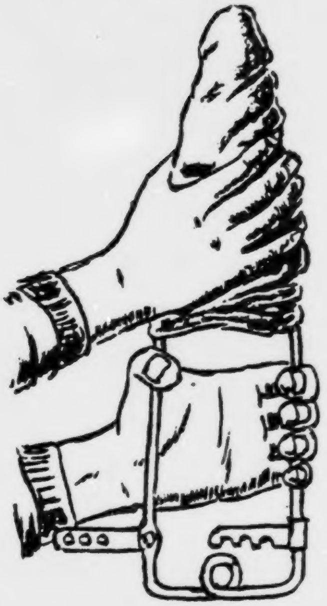


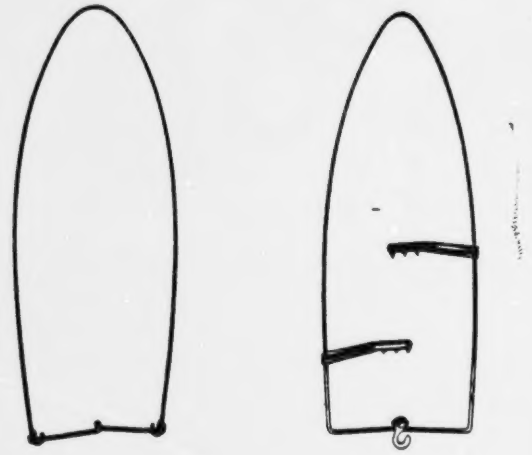
Tail Stripper



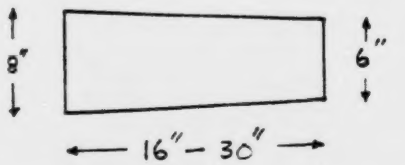
Carcass Bag

Fur Handling Equipment

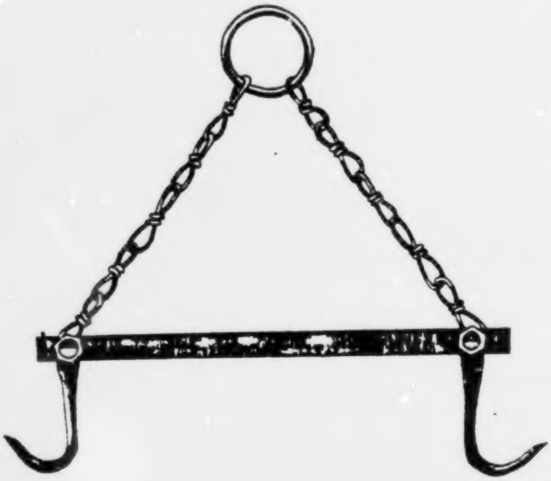




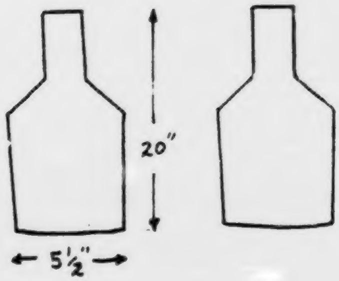
Wire Forming Frames



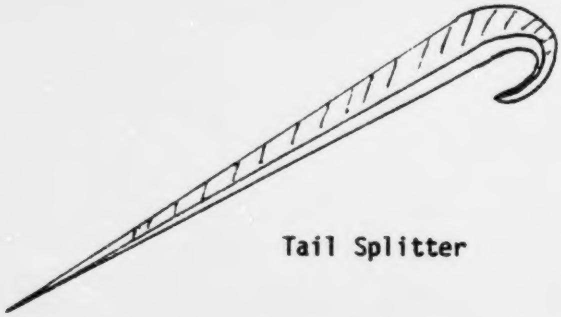
Tail Board



Skinning Gambrel



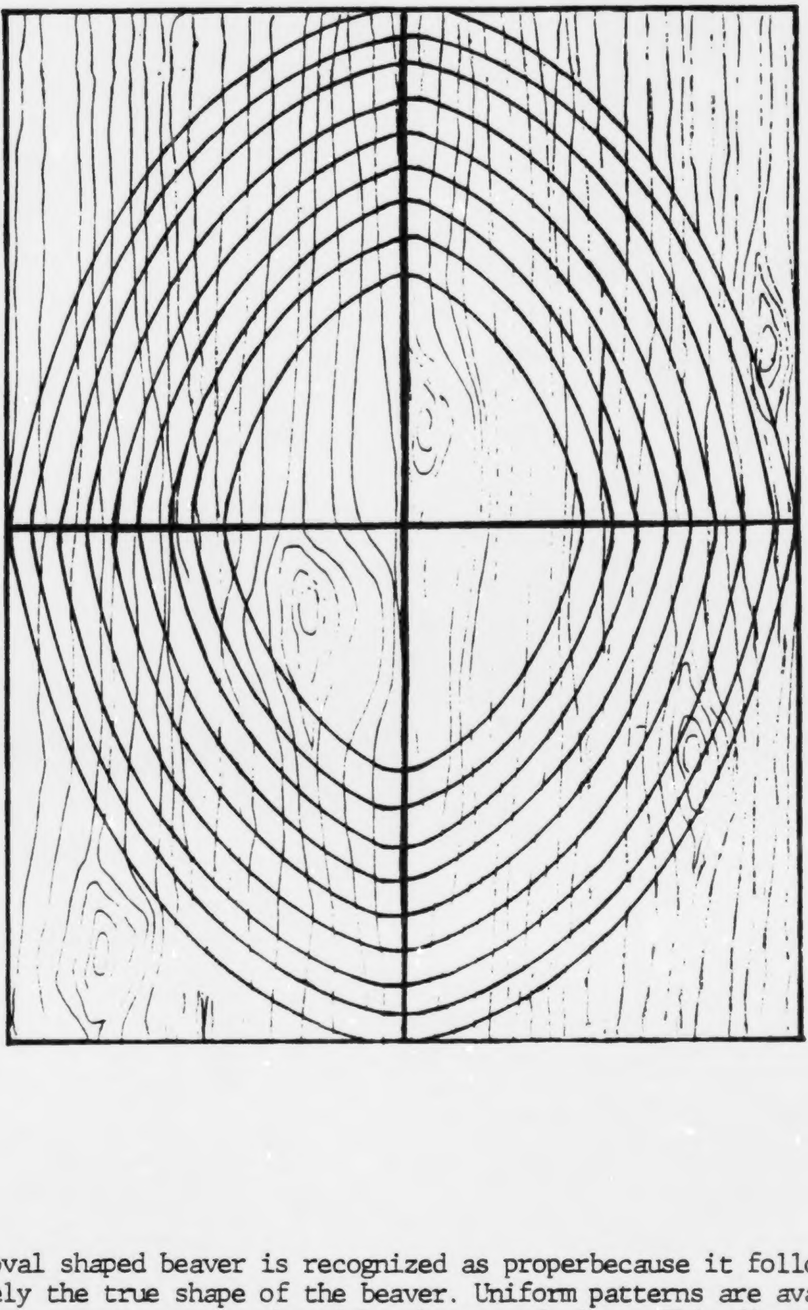
Front Leg Boards



Tail Splitter

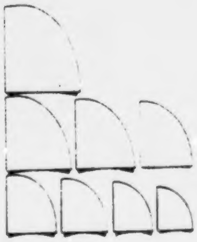
Lift leg portions of pelt on nails after tacking to allow air circulation.

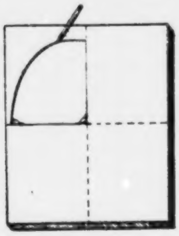
the Open Fur Board

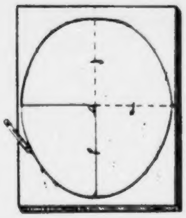


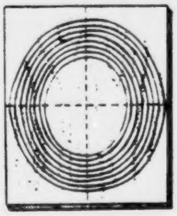
The oval shaped beaver is recognized as properbecause it follows closely the true shape of the beaver. Uniform patterns are available for your use to ensure the right shapes and sizes. This diagram shows an inexpensive,easily made and practical beaver board. On this board the patterns are illustradted.

USE OF MASTER
BEAVER TEMPLATE

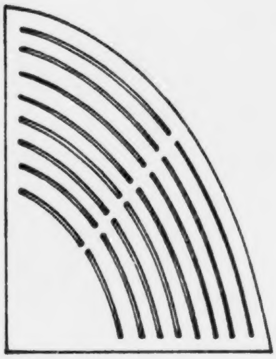




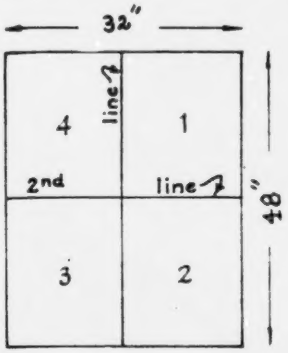




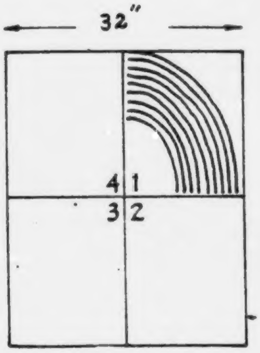
CARDBOARD TEMPLATES



The beaver template represents all pelt sizes from 82 inch (205 cm) supers to 42 inch (105 cm) cubs including in-between sizes. The use of the Master Beaver Template ensures that each beaver pelt, regardless of size, will be perfectly uniform.



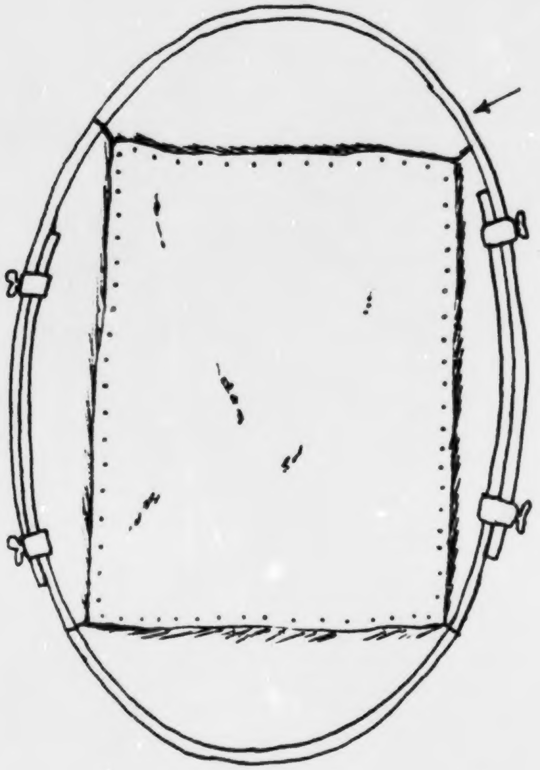
1. Draw two lines at right angles on the surface where you want the pattern. Draw one line from side to side across the centre of the drying board and the other from end to end, also through the centre

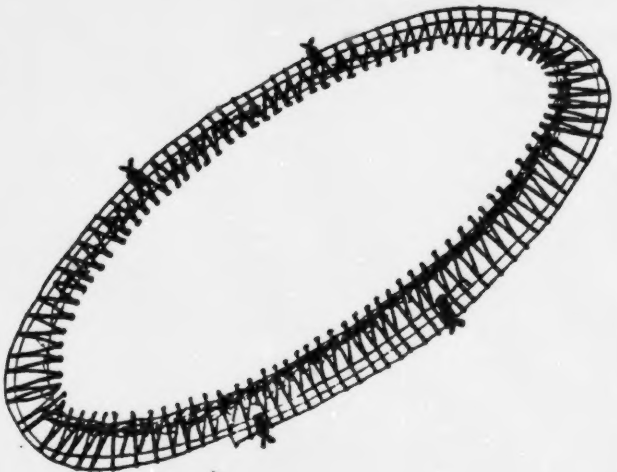


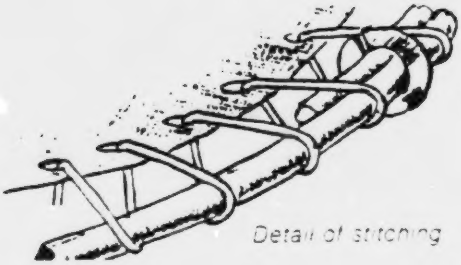
2. Place the template on number one and trace the outline by a marking tool through each of the slots and the outer circular edge. When number one is marked, move to number two and continue the process until each of the four positions has been marked

When the tracing is done the board is ready to receive beaver pelts. Proceed as directed.

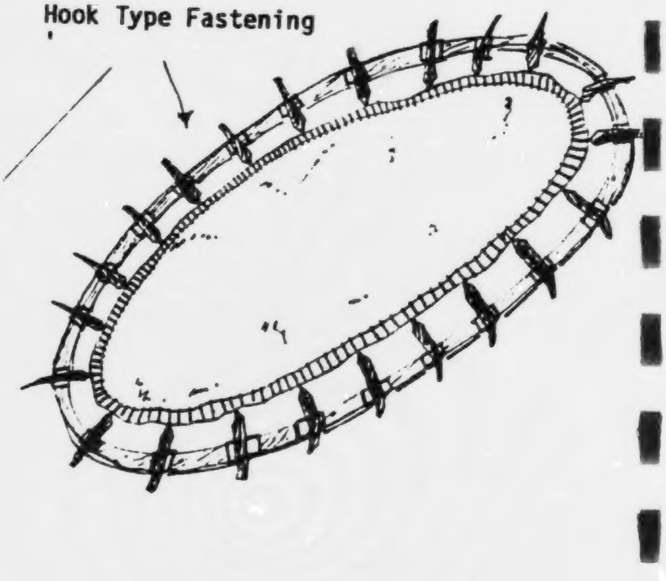
Beaver Forming Hoops

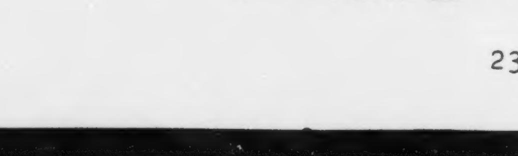

Green Willow


Stitch Type Fastening



Detail of stitching


Hook Type Fastening



Detail of hooks

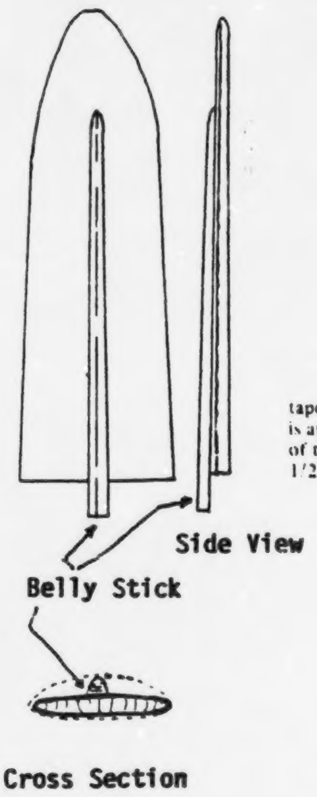
Cased Fur Drying Boards

Drying board sizes are included with the directions for handling specific furs.

When individual drying boards have been cut to size and shape, the edges must be sloped on both sides with a plane, draw-knife, hand axe or knife. The cross-section of the drying board on this page shows the approximate proper shape of the sloped edge of the form all round. When completely shaped, the entire board should then be sanded smooth.

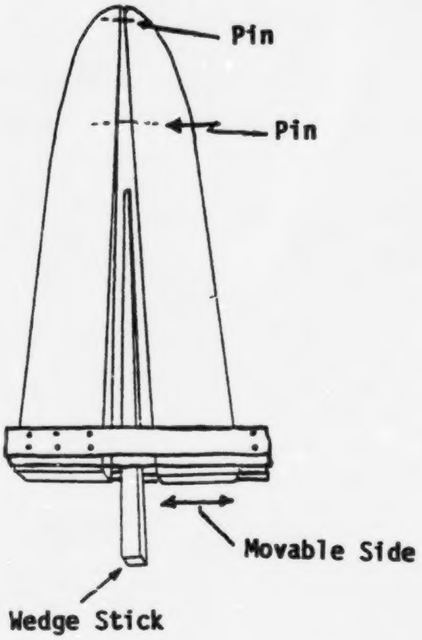
The illustrations show two different models of drying boards having slightly different methods of easing the pelt tensions for easy removal of the dried pelt. The three piece 'a' type can be used on a wider range of pelt sizes than the 'b' type solid drying board, but is more complicated to build.

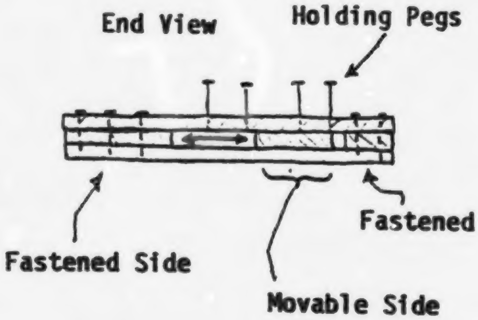
B. Single Piece Drying Board and Belly Stick


Side View
Belly Stick
Cross Section

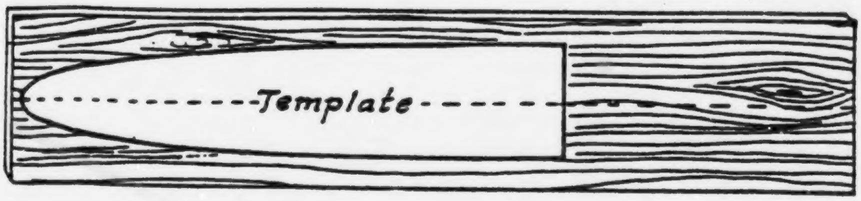
tapered wedge or belly stick is at lease 3/4 the length of the board and is about 1/2" x 3/4" in cross section.

A. Jointed Drying Board

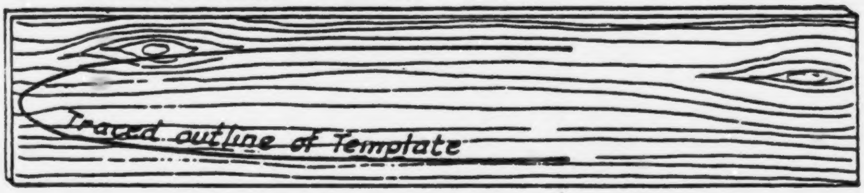

Pin
Pin
Movable Side
Wedge Stick


End View
Holding Pegs
Fastened Side
Fastened
Movable Side

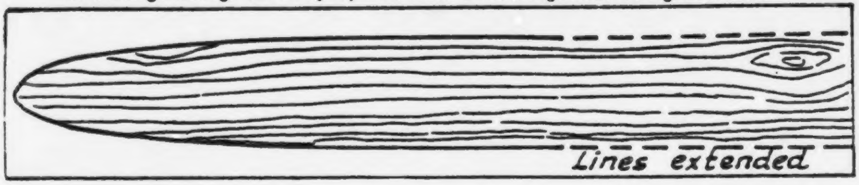
HOW TO USE TEMPLATES FOR CASED FORMING BOARDS



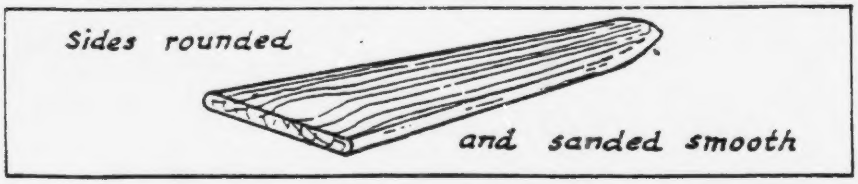
1. **Select the template you wish to use.**
2. **Cut around the template with scissors or knife.**



3. **Check the stretcher measurements given on the template then select or make a board large enough for the job, then draw a line lengthwise along its centre.**

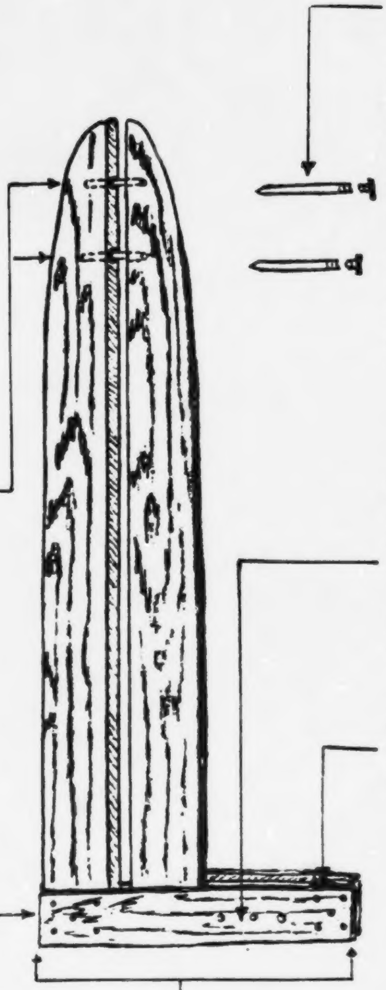


4. **Wet the adhesive back of the template then apply it to the board so that the centre line of the template lies on the centre line of the board with the nose point at one end of the board.**
5. **If the finished stretcher is to be longer than the template then a straight edge should be laid along the outer edge of the applied template and the stretcher outline marked in a continuing line from the template base onward.**



6. **When you are sure you have all marking complete and accurate and the template is well dried to the board, cut away all of the board which lies outside the outline. Round the edges of the stretcher and it is ready for use. This finished stretcher can then be used as a pattern for further stretchers of this size.**

CONSTRUCTION OF SPLIT FORMING BOARDS



Mark lines across both boards and then drill into centre of board, form middle toward outside following the lines. Then tap nail snuggly into one board and fit the second board into the nails protruding from the first board. The nails should just fit into the previously drilled holes.

Nails with heads cut off usually 2" - 3" long. Nail is 4" long or longer for wolf forming boards. These nails keep the the boards from twisting while still allowing the boards to be spread apart to tighten the pelt.

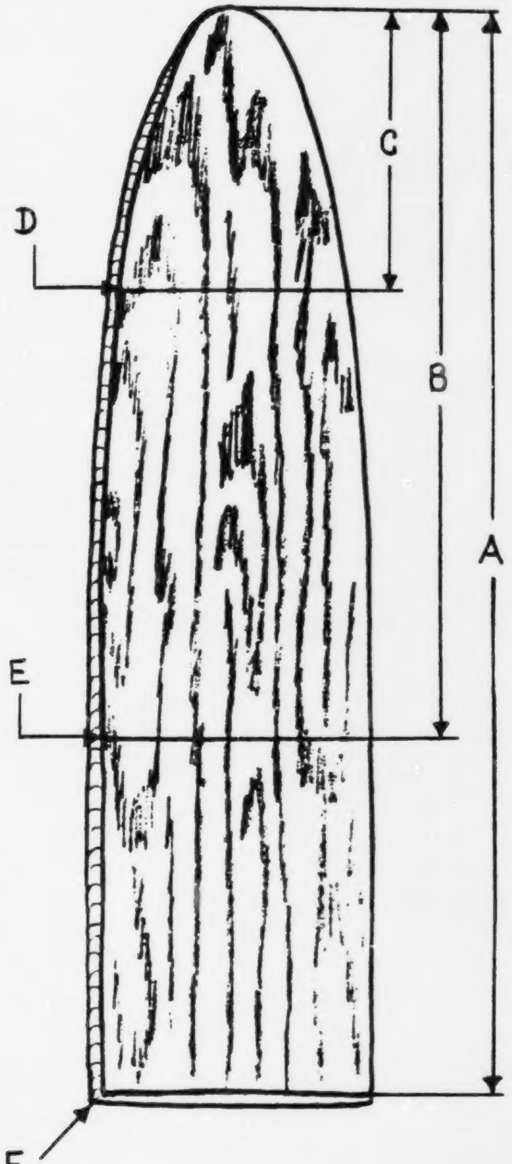
Holes drilled through base spreader board so a nail can be slipped through to hold fur form at desired width.

Use two spreader boards nailed to each side of one fur forming board.

Spacer block nailed between base spreader boards.

Species	Base Spreader Board Lengths
Wolf	17"
Coyote-Wolverine	14"
Fox-Large Fisher	12"
Small Fisher	9 1/2"
Large Lynx	13"
Small Lynx	11"
Otter	12"
Raccoon	17"
Skunk	12"

ALBERTA MUSKRAT PATTERNS



A - Total Length

B - Length from nose to E

C - Nose to shoulder length

D - Shoulder width

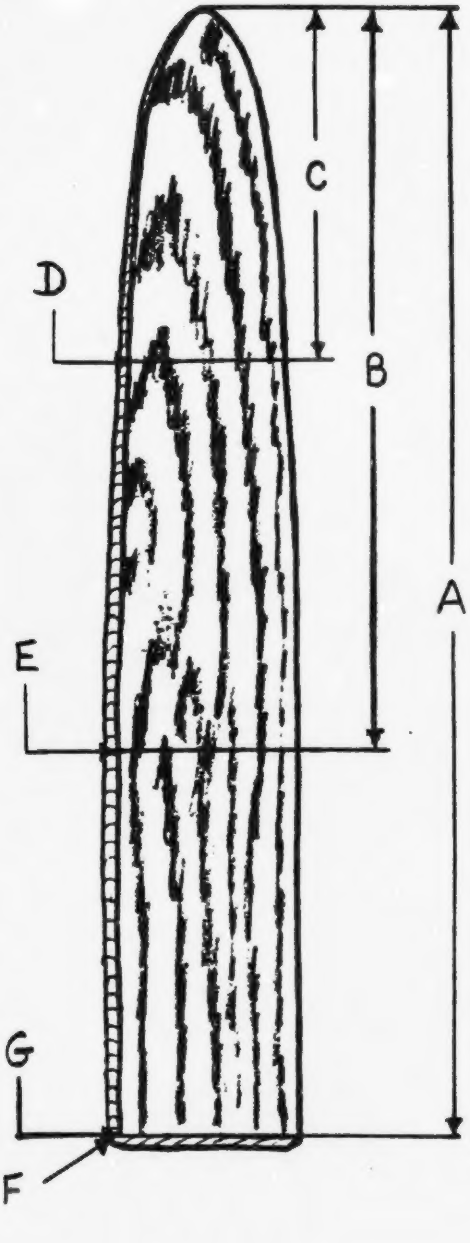
E - Width at tail section

F - Board thickness

	A	B	C	D	E	F
Extra Large	24"	18"	7"	5 1/2"	6 1/2"	3/8"
Medium and Large	24"	16"	6"	5"	6"	3/8"
Small	24"	14"	5"	4 1/2"	5 1/2"	3/8"

*One piece poard - use belly stick, round the edges.

ALBERTA SQUIRREL PATTERNS



A - Total Length

B - Length from nose to E

C - Nose to shoulder length

D - Shoulder width

E - Width at tail section

F - Board thickness

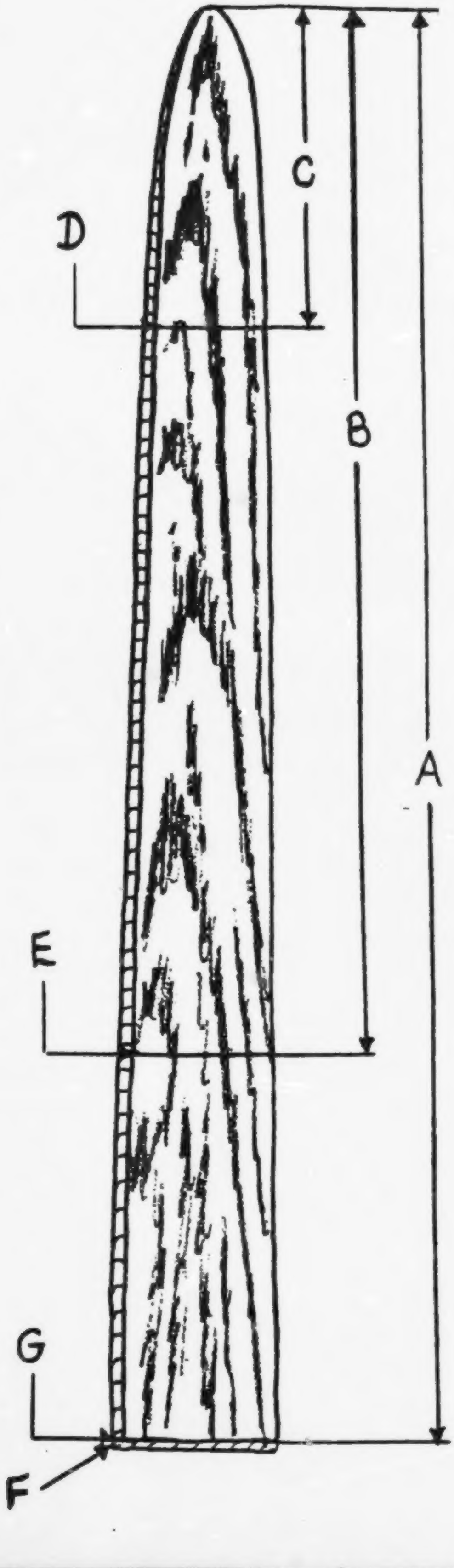
G - Width at base

A	B	C	D	E	F	G
16"	10 1/2"	5"	2 1/4"	2 5/8"	3/16"	2 5/8"

*One piece poard - use belly stick, round the edges

For squirrel, cedar shingles make excellent forming boards. Recommended shingle size is 18" long if available (thin part of shingle at the nose).

ALBERTA ERMINE PATTERNS



A - Total Length

B - Length from nose to E

C - Nose to shoulder length

D - Shoulder width

E - Width at tail section

F - Board thickness

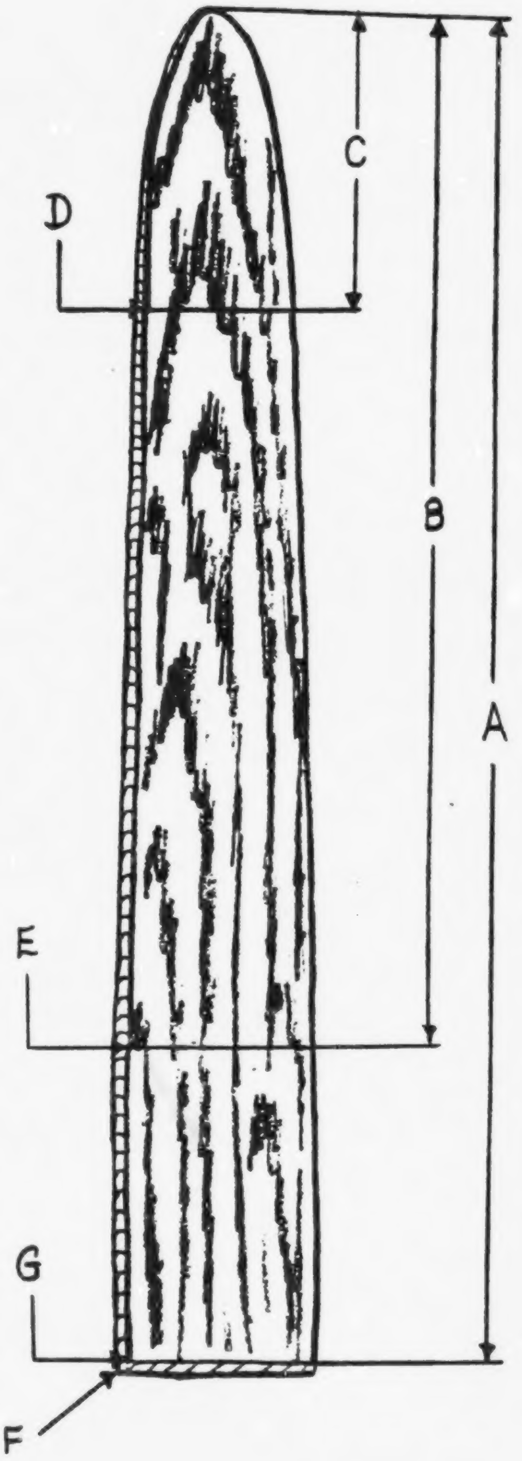
G - Width at base

	A	B	C	D	E	F	G
Extra Large (Long tail)	22"	16"	5"	1 3/4"	2 1/4"	3/16"	2 1/2 "
Large	18"	12"	4"	1 5/8"	1 7/8"	3/16"	2"
Medium and Small	18"	10"	3"	1 1/4"	1 1/2"	3/16"	1 3/4"

*One piece board - use belly stick, round the edges

For weasel, cedar shingles make excellent forming boards. Recommended shingle size is 18" long, if available (thin part of shingle at the nose).

ALBERTA MINK AND MARTEN PATTERNS



A - Total Length

B - Length from nose to E

C - Nose to shoulder length

D - Shoulder width

E - Width at tail section

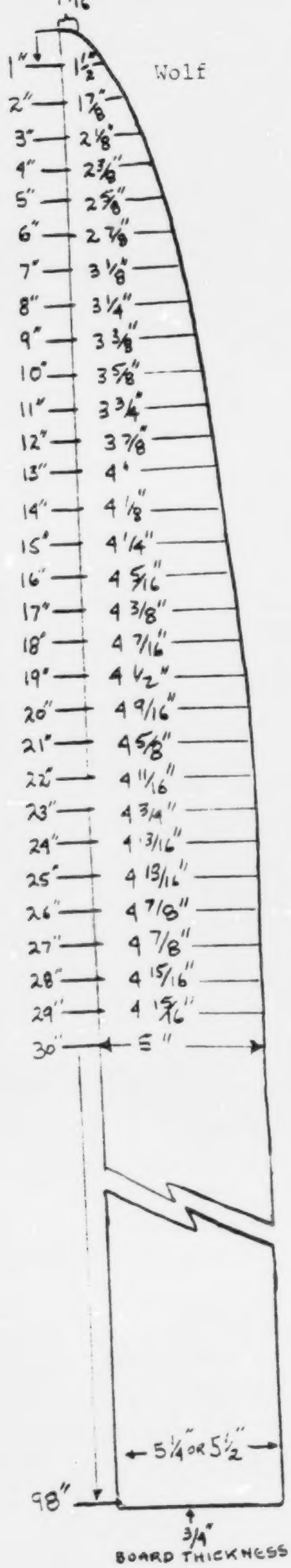
F - Board thickness

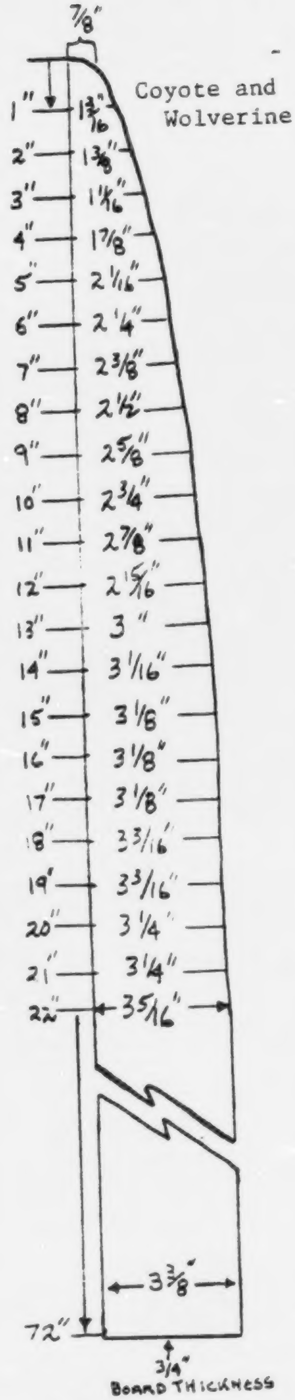
G - Width at base

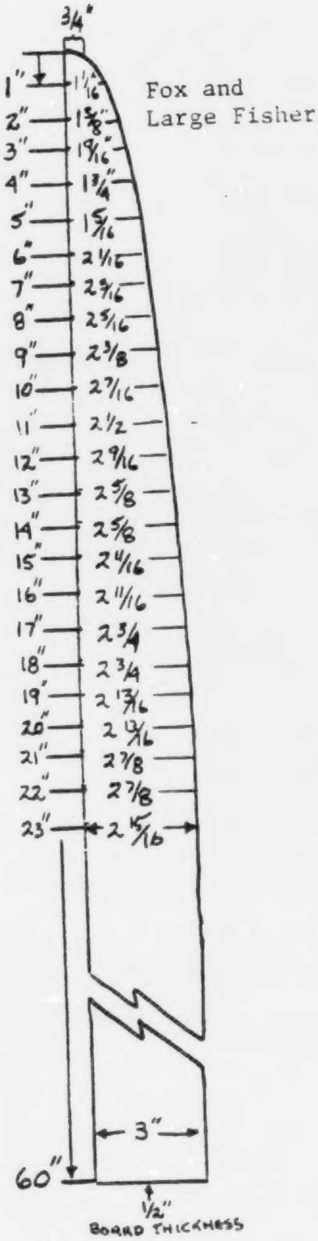
	A	B	C	D	E	F	
Extra Large males	40"	30"	8 1/2"	3 1/2"	4 1/2"	3/8"	5" "
Large Males	40"	30"	8"	3 1/4"	4 1/4"	3/8"	4 1/2"
Fe- males	40"	30"	8"	3"	4"	3/8"	4 1/2"

*One piece board - use belly stick, round the edges

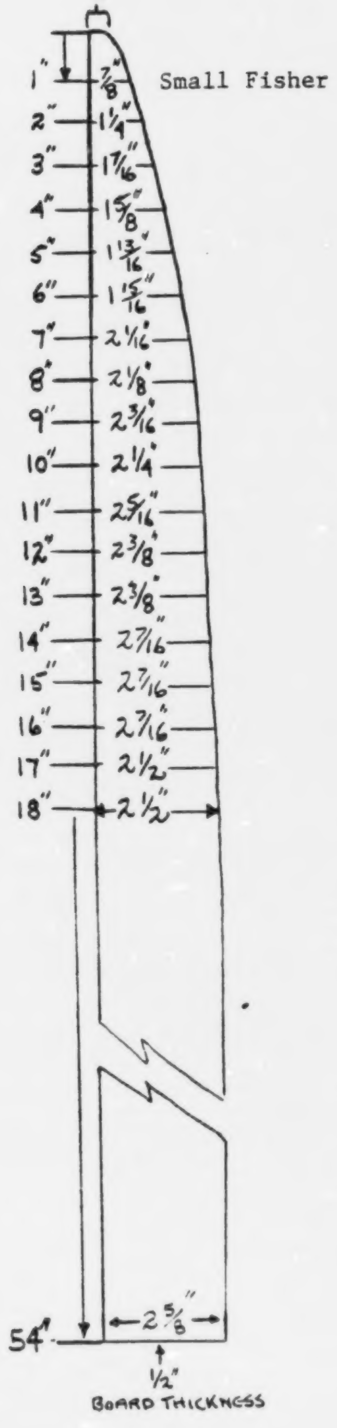
TEMPLATES FOR CASED PELTS - SPLIT BOARDS


1 1/16"
Wolf
1" — 1 1/2"
2" — 1 7/8"
3" — 2 1/8"
4" — 2 3/8"
5" — 2 5/8"
6" — 2 7/8"
7" — 3 1/8"
8" — 3 1/4"
9" — 3 3/8"
10" — 3 5/8"
11" — 3 3/4"
12" — 3 7/8"
13" — 4"
14" — 4 1/8"
15" — 4 1/4"
16" — 4 5/16"
17" — 4 3/8"
18" — 4 7/16"
19" — 4 1/2"
20" — 4 9/16"
21" — 4 5/8"
22" — 4 11/16"
23" — 4 3/4"
24" — 4 13/16"
25" — 4 13/16"
26" — 4 7/8"
27" — 4 7/8"
28" — 4 15/16"
29" — 4 15/16"
30" — 5"
5 1/4 OR 5 1/2"
98"
3/4"
BOARD THICKNESS

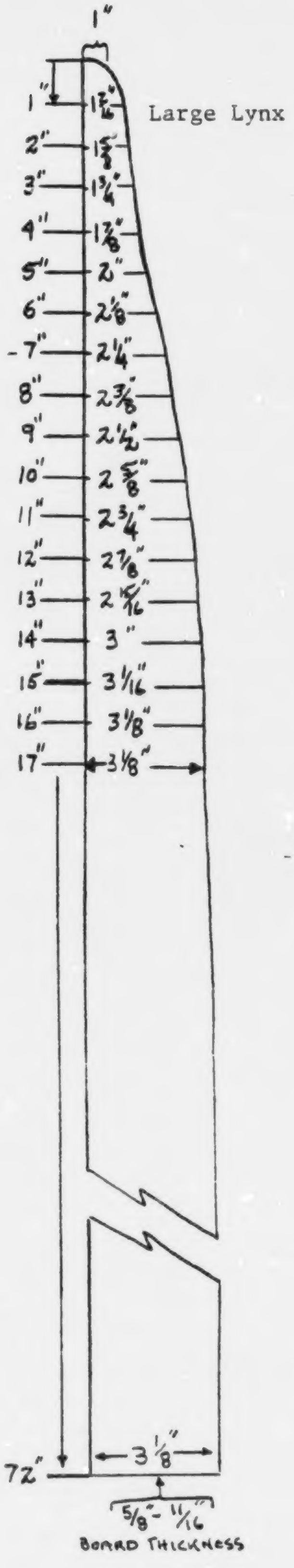

7/8"
Coyote and Wolverine
1" — 1 3/16"
2" — 1 3/8"
3" — 1 11/16"
4" — 1 7/8"
5" — 2 1/16"
6" — 2 1/4"
7" — 2 3/8"
8" — 2 1/2"
9" — 2 5/8"
10" — 2 3/4"
11" — 2 7/8"
12" — 2 15/16"
13" — 3"
14" — 3 1/16"
15" — 3 1/8"
16" — 3 1/8"
17" — 3 1/8"
18" — 3 3/16"
19" — 3 3/16"
20" — 3 1/4"
21" — 3 1/4"
22" — 3 5/16"
3 3/8"
72"
3/4"
BOARD THICKNESS


3/4"
Fox and Large Fisher
1" — 1 1/16"
2" — 1 3/8"
3" — 1 9/16"
4" — 1 3/4"
5" — 1 15/16
6" — 2 1/16
7" — 2 3/16
8" — 2 5/16
9" — 2 3/8
10" — 2 7/16
11" — 2 1/2
12" — 2 9/16
13" — 2 5/8
14" — 2 5/8
15" — 2 4/16
16" — 2 11/16
17" — 2 3/4
18" — 2 3/4
19" — 2 13/16
20" — 2 13/16
21" — 2 7/8
22" — 2 7/8
23" — 2 15/16
3"
60"
1/2"
BOARD THICKNESS

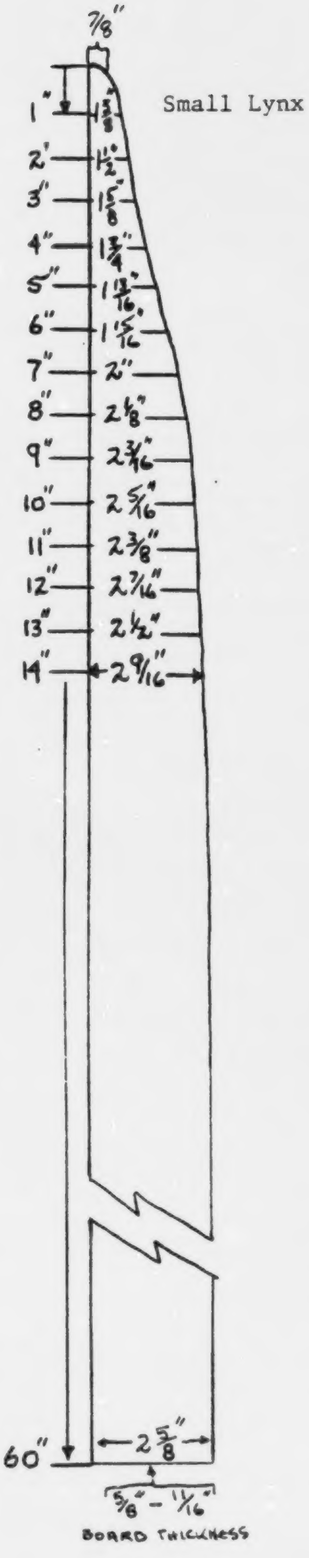
TEMPLATES FOR CASED PELTS - SPLIT BOARDS



1/2"
Small Fisher
1" 7/8"
2" 1 1/4"
3" 1 7/16"
4" 1 5/8"
5" 1 13/16"
6" 1 15/16"
7" 2 1/16"
8" 2 1/8"
9" 2 3/16"
10" 2 1/4"
11" 2 5/16"
12" 2 3/8"
13" 2 3/8"
14" 2 7/16"
15" 2 7/16"
16" 2 7/16"
17" 2 1/2"
18" 2 1/2"
54"
2 5/8"
1/2"
BOARD THICKNESS

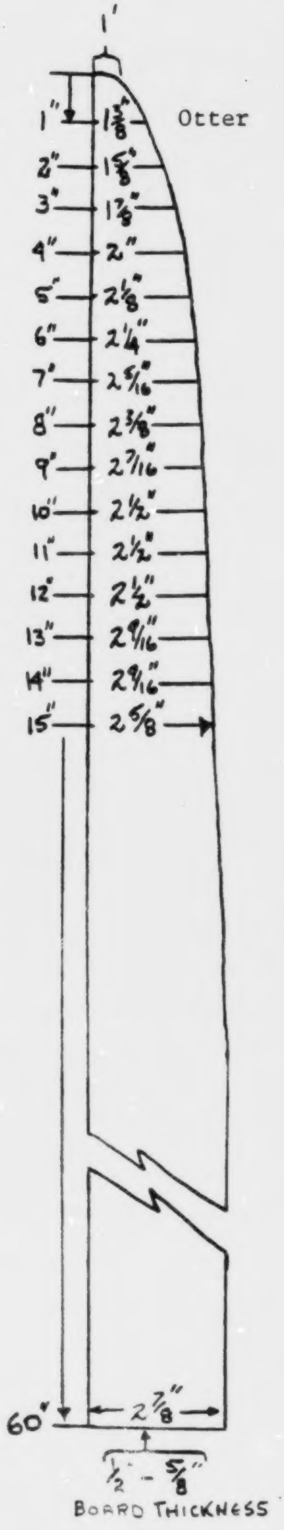


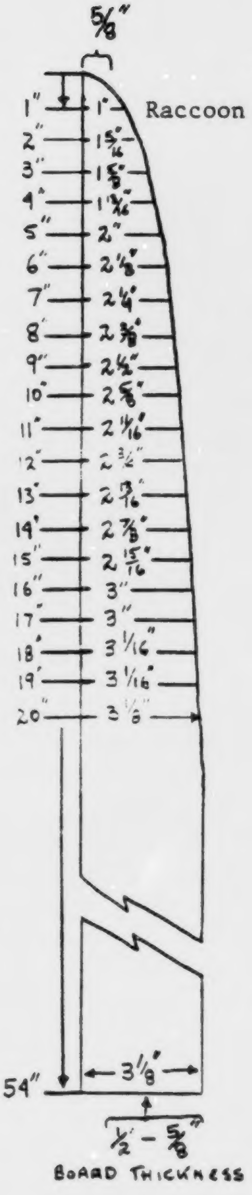
1"
Large Lynx
1" 1 7/16"
2" 1 5/8"
3" 1 3/4"
4" 1 7/8"
5" 2"
6" 2 1/8"
7" 2 1/4"
8" 2 3/8"
9" 2 1/2"
10" 2 5/8"
11" 2 3/4"
12" 2 7/8"
13" 2 15/16"
14" 3"
15" 3 1/16"
16" 3 1/8"
17" 3 1/8"
72"
3 1/8"
5/8" - 11/16"
BOARD THICKNESS

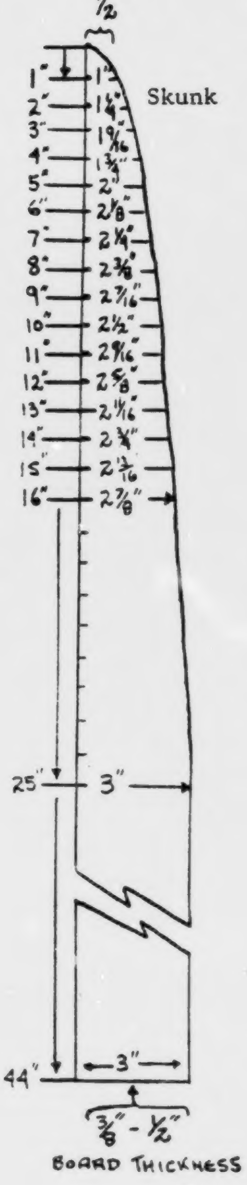


7/8"
Small Lynx
1" 1 3/8"
2" 1 1/2"
3" 1 5/8"
4" 1 3/4"
5" 1 13/16"
6" 1 15/16"
7" 2"
8" 2 1/8"
9" 2 3/16"
10" 2 5/16"
11" 2 3/8"
12" 2 7/16"
13" 2 1/2"
14" 2 9/16"
60"
2 5/8"
5/8" - 11/16"
BOARD THICKNESS

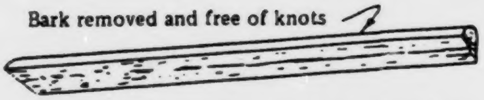
TEMPLATES FOR CASED PELTS - SPLIT BOARDS


1'
Otter
1" — 1 3/8"
2" — 1 5/8"
3" — 1 7/8"
4" — 2"
5" — 2 1/8"
6" — 2 1/4"
7" — 2 5/16"
8" — 2 3/8"
9" — 2 7/16"
10" — 2 1/2"
11" — 2 1/2"
12" — 2 1/2"
13" — 2 9/16"
14" — 2 9/16"
15" — 2 5/8"
60"
2 7/8"
1/2" - 5/8"
BOARD THICKNESS

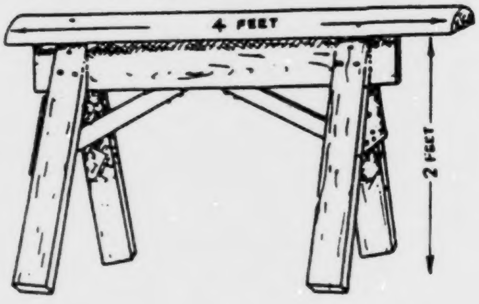

5/8"
Raccoon
1" — 1"
2" — 1 5/16"
3" — 1 5/8"
4" — 1 13/16"
5" — 2"
6" — 2 1/8"
7" — 2 1/4"
8" — 2 3/8"
9" — 2 1/2"
10" — 2 5/8"
11" — 2 11/16"
12" — 2 3/4"
13" — 2 13/16"
14" — 2 7/8"
15" — 2 15/16"
16" — 3"
17" — 3"
18" — 3 1/16"
19" — 3 1/16"
20" — 3 1/8"
54"
3 1/8"
1/2" - 5/8"
BOARD THICKNESS

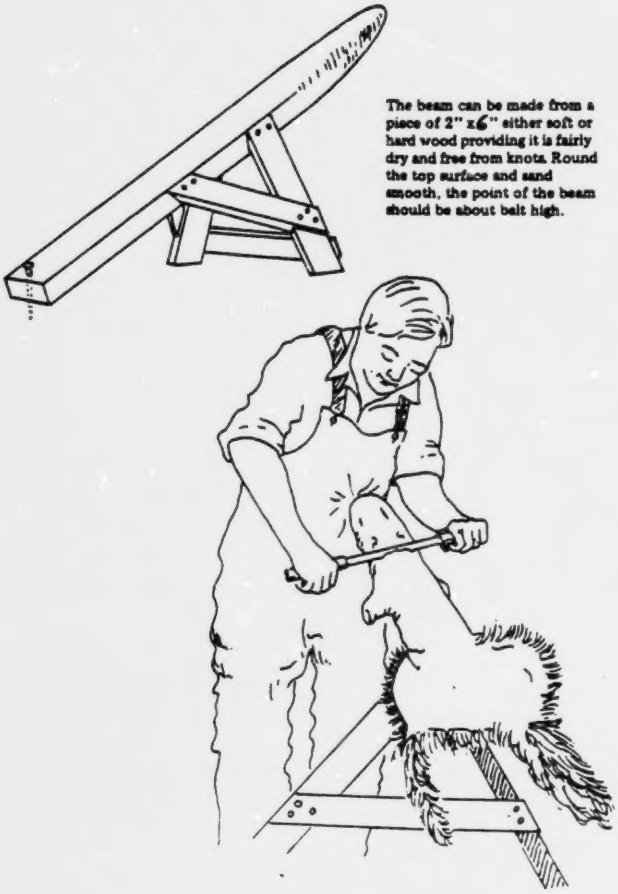

1/2"
Skunk
1" — 1"
2" — 1 1/4"
3" — 1 9/16"
4" — 1 3/4"
5" — 2"
6" — 2 1/8"
7" — 2 1/4"
8" — 2 3/8"
9" — 2 7/16"
10" — 2 1/2"
11" — 2 9/16"
12" — 2 5/8"
13" — 2 11/16"
14" — 2 3/4"
15" — 2 13/16"
16" — 2 7/8"
25" — 3"
44"
3"
3/8" - 1/2"
BOARD THICKNESS

FLESHING BEAMS

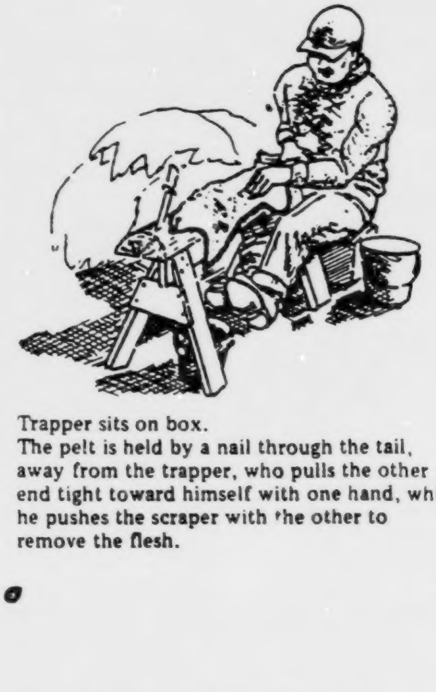

Bark removed and free of knots

This Flesher is an ordinary carpenters saw-horse with a smooth pine or spruce slab fastened on top with a couple of nails.

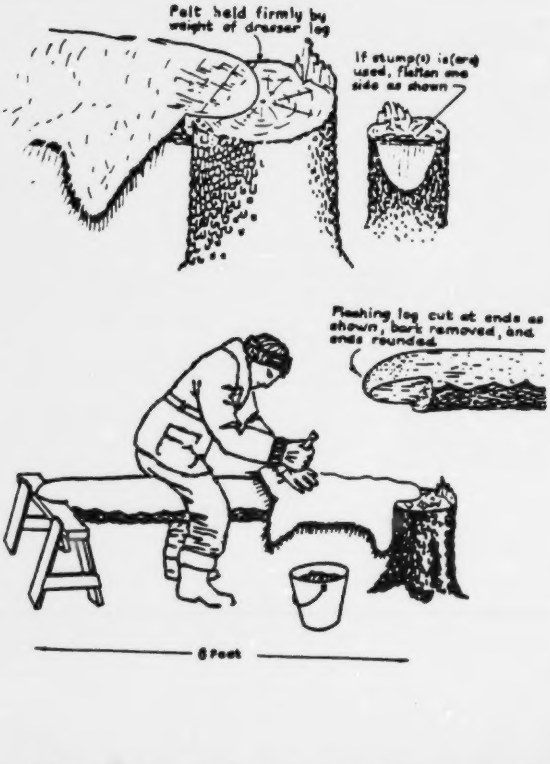

4 FEET
2 FEET



The beam can be made from a piece of 2" x 6" either soft or hard wood providing it is fairly dry and free from knots. Round the top surface and sand smooth, the point of the beam should be about belt high.



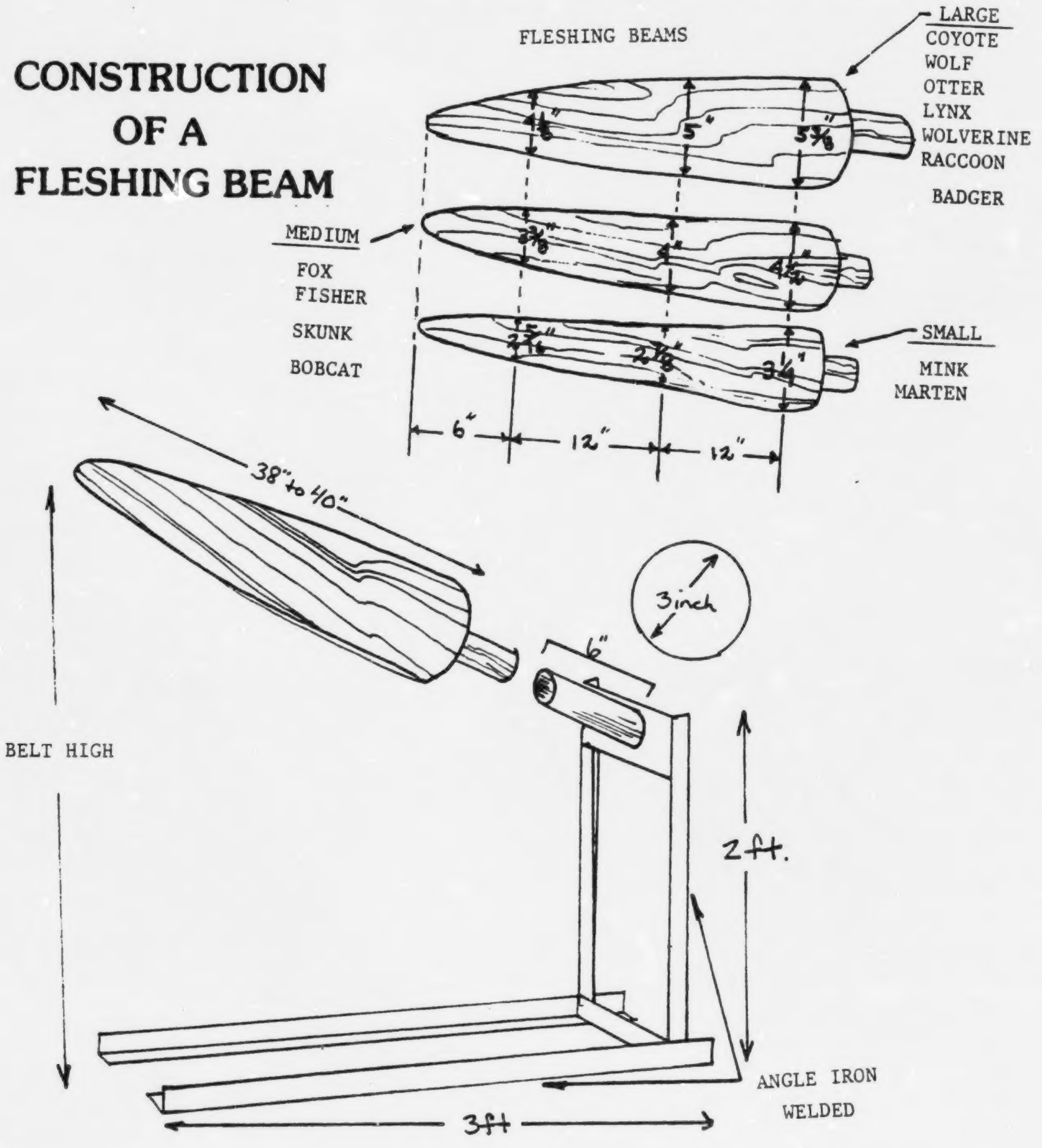
Trapper sits on box.
The pelt is held by a nail through the tail, away from the trapper, who pulls the other end tight toward himself with one hand, while he pushes the scraper with the other to remove the flesh.


Pelt held firmly by weight of dresser log
If stump(s) is(are) used, flatten one side as shown
Fleshing log cut at ends as shown, bark removed, and ends rounded.
8 Feet

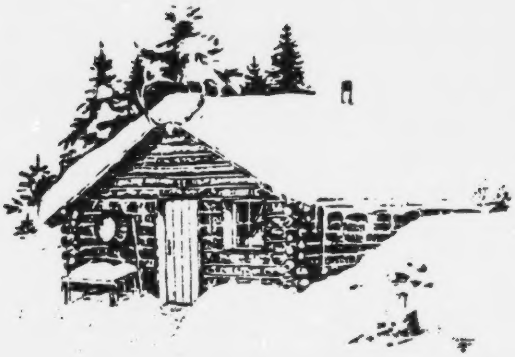
Material - axe, draw knife, 8'x 12" log, sawhorses or stumps, or both.

Instructions:
1. Flesher log is placed upon prepared supports
2. Pelt (fur down) edge is pinched under flesher log and stump or sawhorse.
3. Pelt dresser sits astraddle flesher log
4. Flesh with flat-edged tools

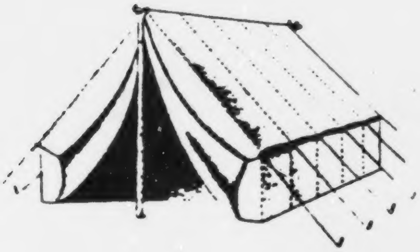
CONSTRUCTION OF A FLESHING BEAM


FLESHING BEAMS
LARGE
COYOTE
WOLF
OTTER
LYNX
WOLVERINE
RACCOON
BADGER
4 1/8"
5"
5 3/8"
MEDIUM
FOX
FISHER
SKUNK
BOBCAT
3 3/8"
4"
4 1/4"
SMALL
MINK
MARTEN
2 5/16"
2 5/8"
3 1/4"
6"
12"
12"
38" to 40"
3inch
6"
BELT HIGH
2ft.
ANGLE IRON
WELDED
3ft

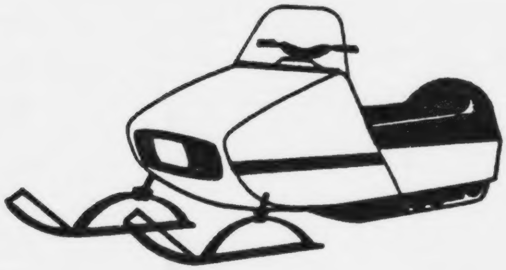
TRANSPORTATION AND LIVING ACCOMMODATIONS



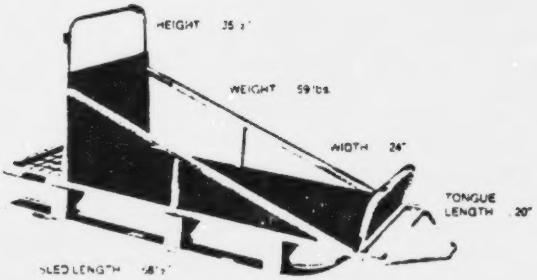
cabin



tent



snowmobile


HEIGHT 35 ½"
WEIGHT 59 lbs.
WIDTH 24"
TONGUE LENGTH 20"
SLED LENGTH 58½"

snowmobile sled

canoe

dog team

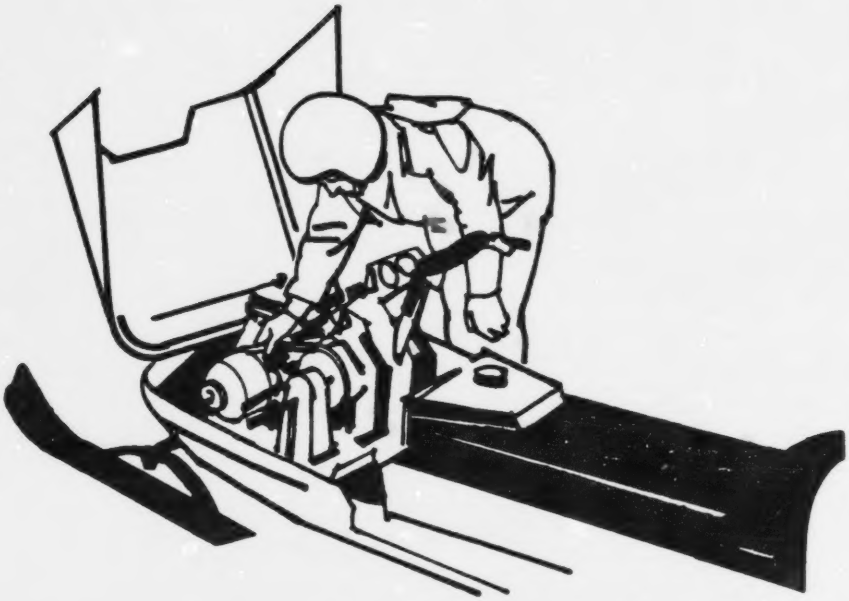
truck

SNOWMOBILE

GENERAL MAINTENANCE

The maintenance and care you give your snowmobile contributes significantly to the fun and safety of your snowmobiling adventures. It is very important that every snowmobile receive regular maintenance and care, but it is doubly important that it be done correctly. Appreciate the complexity of your snowmobile, recognize the rough exposure it receives, and maintain it properly while recognizing your limitations to perform mechanical procedures.

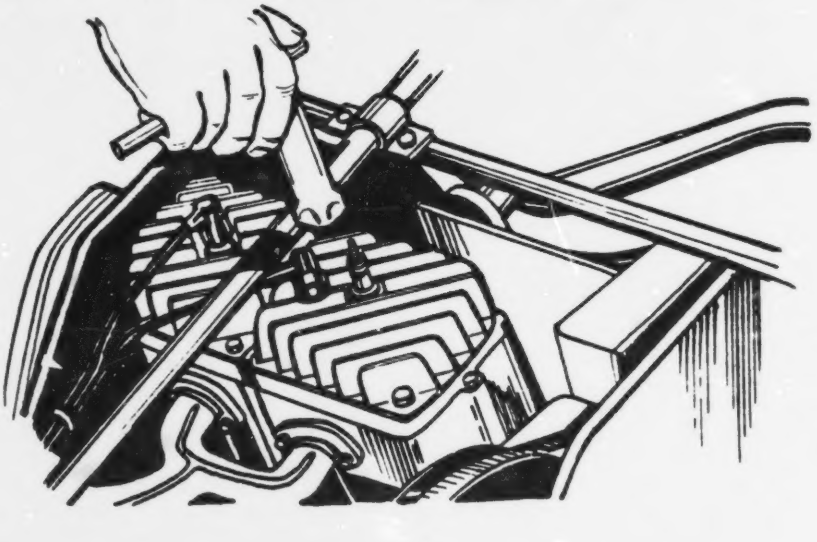
Each snowmobile should be given a thorough check periodically, and a general check before each ride. Snowmobiles are often operated in the harshest conditions of weather and terrain. Always follow the maintenance schedules and procedures specified in your owner's/operator's manual to keep the vehicle's components lubricated: to check for loose, worn or misaligned components: to be assured that the carburetor and throttle linkages are set correctly for efficient and proper operation: and for the periodic cleaning and adjustment of the spark plug(s) gap.



Always make certain that your throttle, emergency stop switch, brake, steering and light systems are functioning properly. Never operate your snowmobile unless the hood and the guards are in place and firmly attached.

TROUBLE-SHOOTING

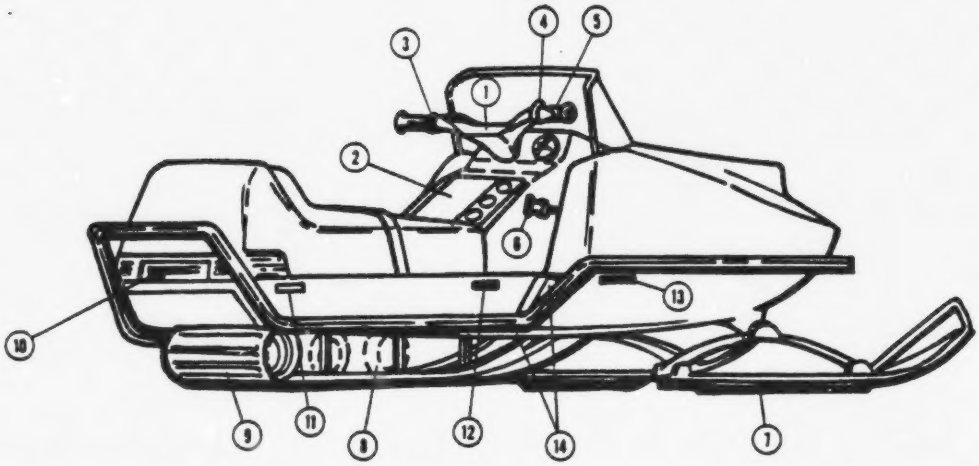
Regular maintenance of your snowmobile and the use of good judgment in its operation will generally prevent breakdowns. Many problems encountered on the trail can be corrected on the spot if you will carry a minimum assortment of tools and spare parts. Listed below for quick reference are some of the most common snowmobile problems and their probable causes. Following these procedures should get your vehicle started again.



TROUBLE	PROBABLE CAUSE	REMEDY
Engine won't start.	Emergency stop switch depressed	Turn on.
	Ignition switch off	Turn on.
	Spark plug fouled	Clean or replace.
	Improper or no ignition	Check spark plug leads. Check for correct spark plug gap and condition.
	Fuel tank empty	Fill.
	Engine starving for fuel	Prime and check carburetor adjustment. Check choke position. Check fuel pump operation. Check lines.
	Plugged fuel line or filter	Clean lines and filter.
	Engine floods	Check carburetor adjustment and position of choke. Open choke, wait one minute or more before restarting.
Rewind starter rope does not retract.	Friction too high in starter	Tap starter housing while keeping small amount of tension on rope.
Rewind starter rope fails to engage or retract.	Broken or worn parts internally	Use emergency start provisions.
Engine runs rough or will not idle.	Carburetor out of adjustment	Adjust carburetor.
	Poor ignition	Follow procedure for "Improper or no ignition" above under "engine won't start."
	Idle speed set too low	Increase idle speed setting.
Low RPM.	Poor ignition	Follow procedure above.
	Carburetor air intake plugged	Remove foreign material.

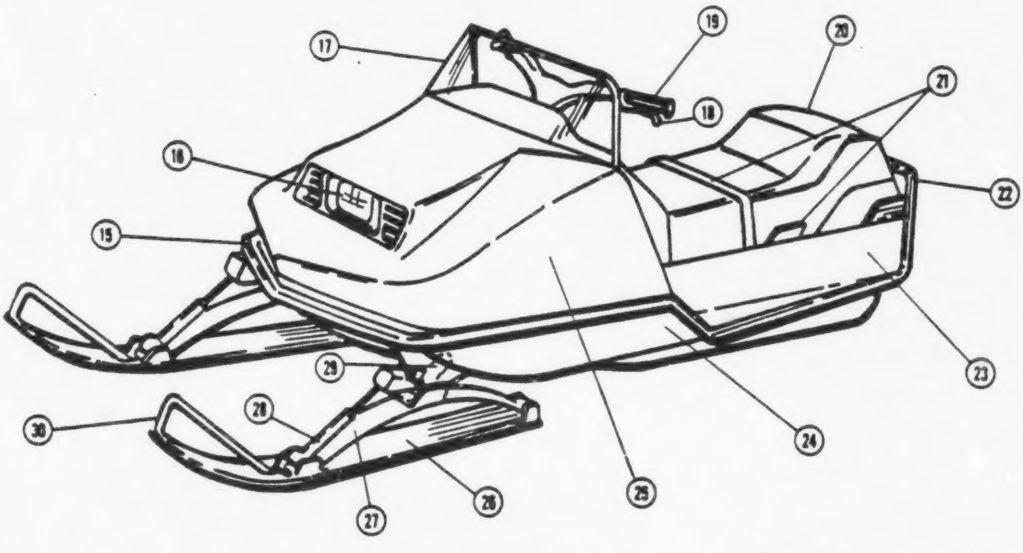
TROUBLE	PROBABLE CAUSE	REMEDY
Vehicle fails to move when throttle is depressed.		Stop Engine.
	Drive belt worn or broken	Replace drive belt.
	Drive chain out of adjustment or broken	Adjust or replace drive chain.
	Track blocked	Tilt machine on side and remove blockage.
Low vehicle speed.	Drive belt wrong size or worn	Replace drive belt.
	Clutches out of alignment	Realign.
	Operating on only one spark plug	Follow same procedure as "improper or no ignition" under "engine won't start."
	Chain and/or track too tight or loose	Readjust.
	Packed snow in vehicle	Remove while engine is stopped.
Lights won't light.	Loose connections	Check and tighten.
	Corroded connections	Clean.
	Bad switch	Repair or replace.
	Bulb burned out	Replace bulb.

Do not operate your machine when it is faulty, or with guards or components removed.



NOMENCLATURE

1. Steering Control (Handlebar)
2. Console
3. Headlight Hi-Lo Beam Switch
4. Emergency Stop Switch (Electrical cut-off for engine ignition)
5. Throttle Control (Lever type)
6. Manual Starter Handle
7. Ski Wear Rod, Wear Bar (Reduces ski wear and greatly improves directional control)
8. Suspension (Slide and/or Bogie Wheel types)
9. Track (Cleated or Moulded, propels vehicle)
10. Taillight/Brake Light
11. Reflectors/Side Marker Lights
12. Vehicle Identification Number (Right side of vehicle)
13. Reflectors/Side Marker Lights
14. Running Board and Footrest



15. Front Bumper
16. Headlight or Headlamp
17. Windshield
18. Brake Control
19. Handlebar Grip
20. Seat
21. Passenger Hand Grips (Not used on all machines)
22. Rear Bumper/Lift Handle (Not used on all machines)
23. Tunnel or Frame
24. Nose Pan or Belly Pan
25. Hood, Cowl or Shroud
26. Ski
27. Ski Suspension (Leafspring type)
28. Ski Shock Absorber (Not used on all machines)
29. Ski Spindle or Ski Leg
30. Ski Handle or Tip

HOW TO FUEL

PARTS AND TOOLS

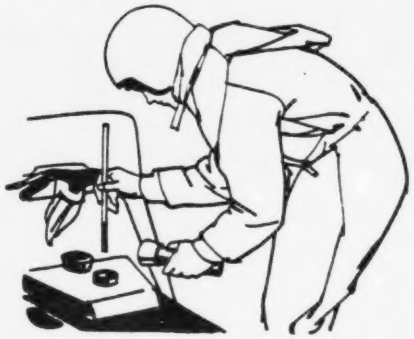
Every snowmobiler should carry at least the following basic parts and tools that can help him and others in an emergency:

- Owner's/Operator's Manual
- Spark Plugs, Wrench and Gap Gauge
- Friction Tape
- Drive and Fan Belts
- Starter Rope
- Light Bulbs
- Tool Kit (including at least pliers, screwdriver, adjustable wrench)
- Knife
- Flashlight

Include other items depending on the length and time of your ride.

The gas and oil mixing procedure is very important to the continued safe operation of your snowmobile. NOTE: See owner's/operator's manual for manufacturers' recommendations for efficient engine operation and lowest emissions.

Always mix oil and gas in a safe place and use a separate, clean container. Pour in a portion of the gasoline, add all of the oil (oil should be at room temperature), shake well, pour in remainder of gasoline. Shake again.



Always keep away from an idling machine when mixing, or fueling another snowmobile and never add fuel while your snowmobile engine is operating. Gasoline and the fumes of gasoline are explosive. Gasoline fumes are heavier than air and can be ignited by a pilot light in a furnace or hot water heater in a utility room, basement or garage. Be familiar with laws pertaining to fuel storage.

Do not light any matches or smoke while filling the tank, and never check fuel with a lighted match.

A full tank exposed to higher temperatures could result in an overflow.

- All carburetors and throttle cable systems are subject to freezing under certain atmospheric conditions. Although it is rare, condensation can accumulate in the carburetor or in the throttle cable system in such a manner as to render them inoperable. Make certain you check the throttle movement prior to starting the snowmobile to ascertain that the carburetor and throttle cable are not frozen. Should the carburetor or throttle cable system freeze while you are driving the snowmobile, immediately turn off the machine with the manual emergency stop switch. Correct the icing condition before the snowmobile is operated. While operating a snowmobile, always be aware of the potential dangers inherent in any "Stuck Throttle" condition and be prepared to immediately respond should such a condition occur.

- Smoking while refueling or while checking the fuel level is dangerous. All fuel gives off fumes. If you do smoke, do so away from the snowmobile.

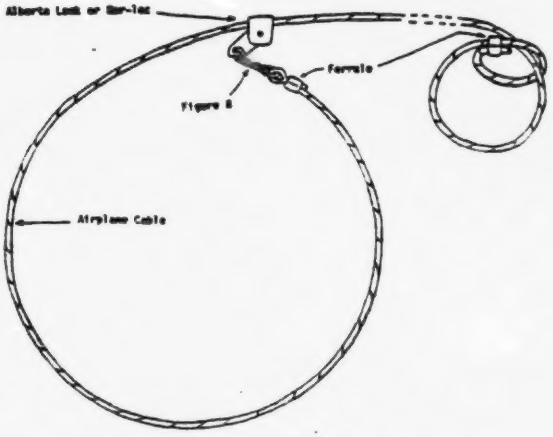
HARASSING WILD GAME

There is nothing very sportsmanlike about the few snowmobilers who have been known to chase wild animals until they drop dead of exhaustion. This is a cruel and barbaric behaviour which is indulged in by very few, but which also gives a responsible snowmobiler a bad name. Anyone observing snowmobilers indulging in this "sport" should record the licence number of the snowmobile and report the matter to the police or the Motor Vehicle Branch of the Department of Transportation. As explained, the legislation provides for the cancellation of registration of snowmobiles for **"any reasonable cause"**. Anyone indulging in this type of activity could have his registration and plates suspended.

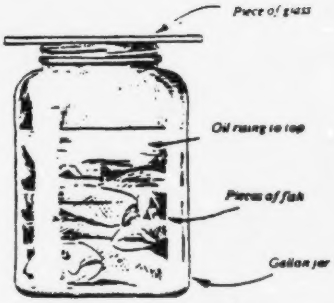
Trapline Preparation and Business Management

Trap and Snare Treating

Forms, Records and Maps


Alberta Lock or Ser-loc
Ferrule
Figure 8
Airplane Cable

Snare Construction


Piece of glass
Oil rising to top
Pieces of fish
Gallon jar

Preparation and Use of Lures

Lesson Objectives

To provide the students with:

1. a seasonal trapline management plan.
2. information on the use of maps and aerial photos as they apply to trapping.
3. a sample record system for fur bearer management purposes.
4. information on tax as it affects the trapper, and necessary business records.
5. information on pre season set preparation.
6. information on the purpose and use of lures.
7. information on the purpose and steps involved in treating traps and snares.
8. steps on how to properly construct snares.

Trapline Preparation and Business Management

INTRODUCTION

Trapping is a business and, like most other businesses today, is being affected by spiralling costs and fluctuating returns.

In order to help ensure economic viability, a trapper should thoroughly plan and organize his/her operations. Due to the short time period when fur is prime, the trapper should be able to devote his full effort toward the planned harvest of fur. It is, therefore, important for the trapper to organize his/her activities on a seasonal basis, so that the necessary preparations are completed prior to the critical harvest period.

The harvest system a trapper uses must suit the location. In some instances, this may mean concentrating on different species at different times, or it may mean setting traps for several species at one location, such as setting for mink, muskrat and beaver at a beaver lodge.

The trapper should try to think in terms of dollars per day and, using a realistic price average, set daily and yearly goals before the season opens. At the end of the season, the results should be analyzed to see why the goals were attained or not.

The following is a suggested trapline management plan which the trapper can use to help guide him as to what planning and activities he should be involved in during different seasons.

TRAPLINE MANAGEMENT PLAN

Four Stages

1. Overall planning
2. Pre Season preparation stage
3. Operational stage
4. Post Season stage

1. Overall Planning Stage

Develop a plan and set goals

- set realistic dates for each stage
- list activities to be completed during each stage
- use maps, aerial photos, etc. to assist the harvest plan (ie: travel routes, set locations and habitat areas)
- plan both business and biological aspects
- set harvest quotas for each species to be harvested
- set deadlines for completing activities

Develop record systems

- For budgeting taxation
  - cost/revenue balance sheet
- Fur harvest data - set location and type
  - bait, scent or lure used
  - species type and number harvested
  - weather and other conditions
  - dates

2. Pre Season Preparation Stage

- Equipment preparation (ie: sufficient quantity and in good repair)
- trap treating and repair
- snare construction
- forming boards and fleshing beams
- other equipment (cabin, snowmobile, etc.)
- prepare baits, scents and lures
- pre season census
- trail preparation
- pre season set preparation

3. Operational Stage

- harvesting (peak primeness, see chart)
- fur handling
- marketing

4. Post Season Stage

- inventory and repair of equipment (order and/or purchase of new or replacement equipment)
- storage (tools, supplies, equipment)
- analyse records

Maps and Aerial Photos

Maps or aerial photos can be a valuable asset to the trapper. The main purpose of these is "not" merely to prevent a trapper from becoming lost (although they can serve this function), but rather, they are a valuable source of information about the area. They can be used to assist in planning, recording and managing the trapline.

Routes can be planned before leaving home, set loctions can be plotted and counted and equipment needs estimated. Habitat and wildlife routes can be assessed and beaver colonies can be inventoried. Data recorded on maps during the year can be analyzed at the end of the season and is useful for planning the next year's operations. For instance, the distribution, abundance and movements of different furbearers and areas of population concentration may be indicated by captures and can be plotted and analyzed on your maps. In other words, maps should form an integral part of your planning and record keeping systems.

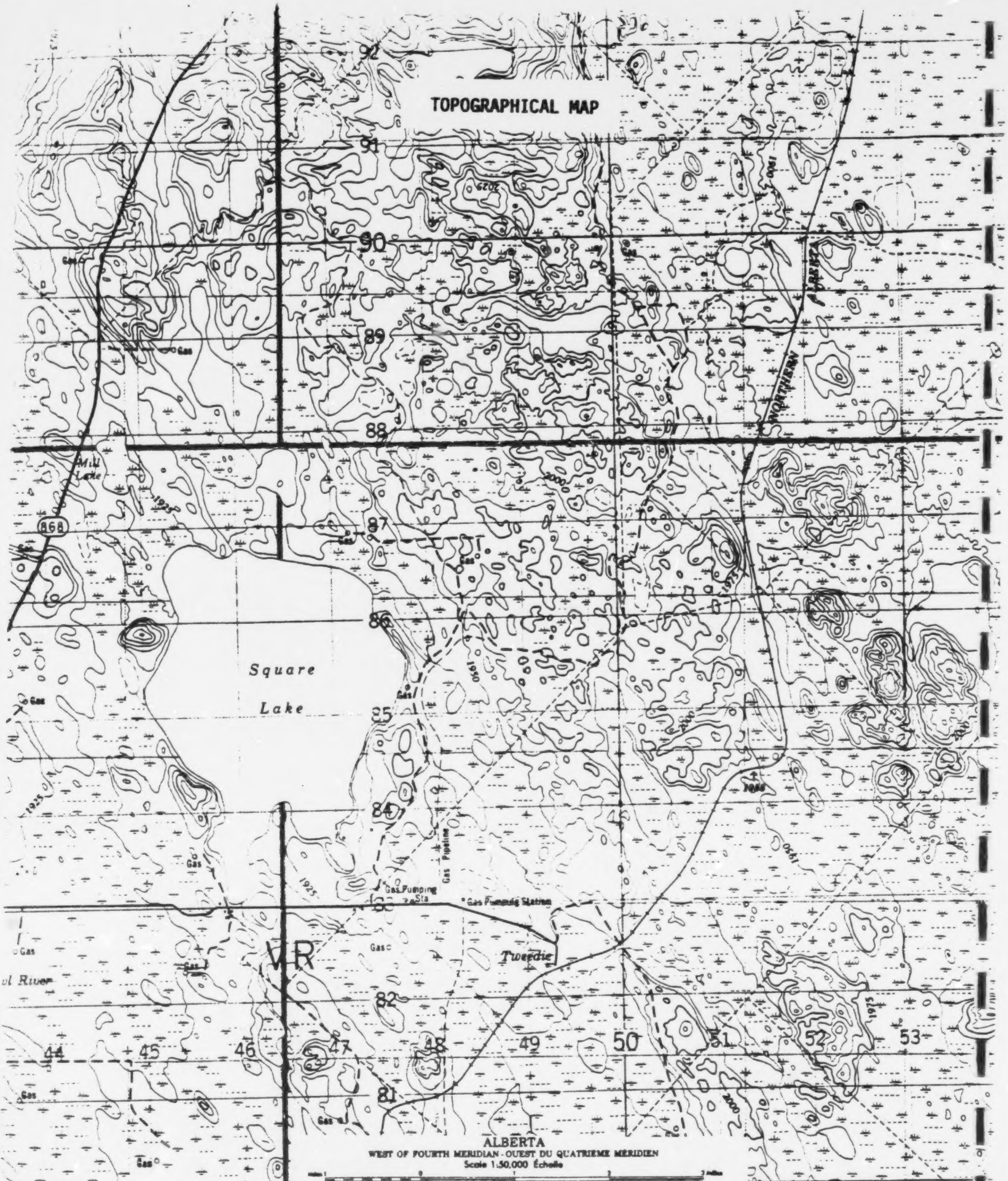
Different kinds and scales of maps are useful for different purposes and probably most trappers will find a combination of maps or aerial photos to be the most useful. The trapper may want to take the time to color code his maps so that certain information will stand out and be more easily interpreted.

Topographical maps (1:50,000 scale) are very useful in showing roads, trails, buildings, lakes, rivers, swampy areas and areas of varying elevation (ie: hills and depressions, etc.). These features of the landscape strongly influence animal travel patterns and can give the trapper many clues for selecting general set locations. Forest Inventory maps (1:15,000 scale) are very useful in showing forest habitat types, burned areas, etc., and are of a sufficiently large scale to be useful for plotting set locations, beaver lodges, etc.

Aerial photos will show details that maps do not. If a powerful magnifying glass or stereoscope is used, hills, valleys, even tree height can be estimated. Aerial photos are particularly useful for showing habitat on private lands that do not show up on Forest Inventory maps.

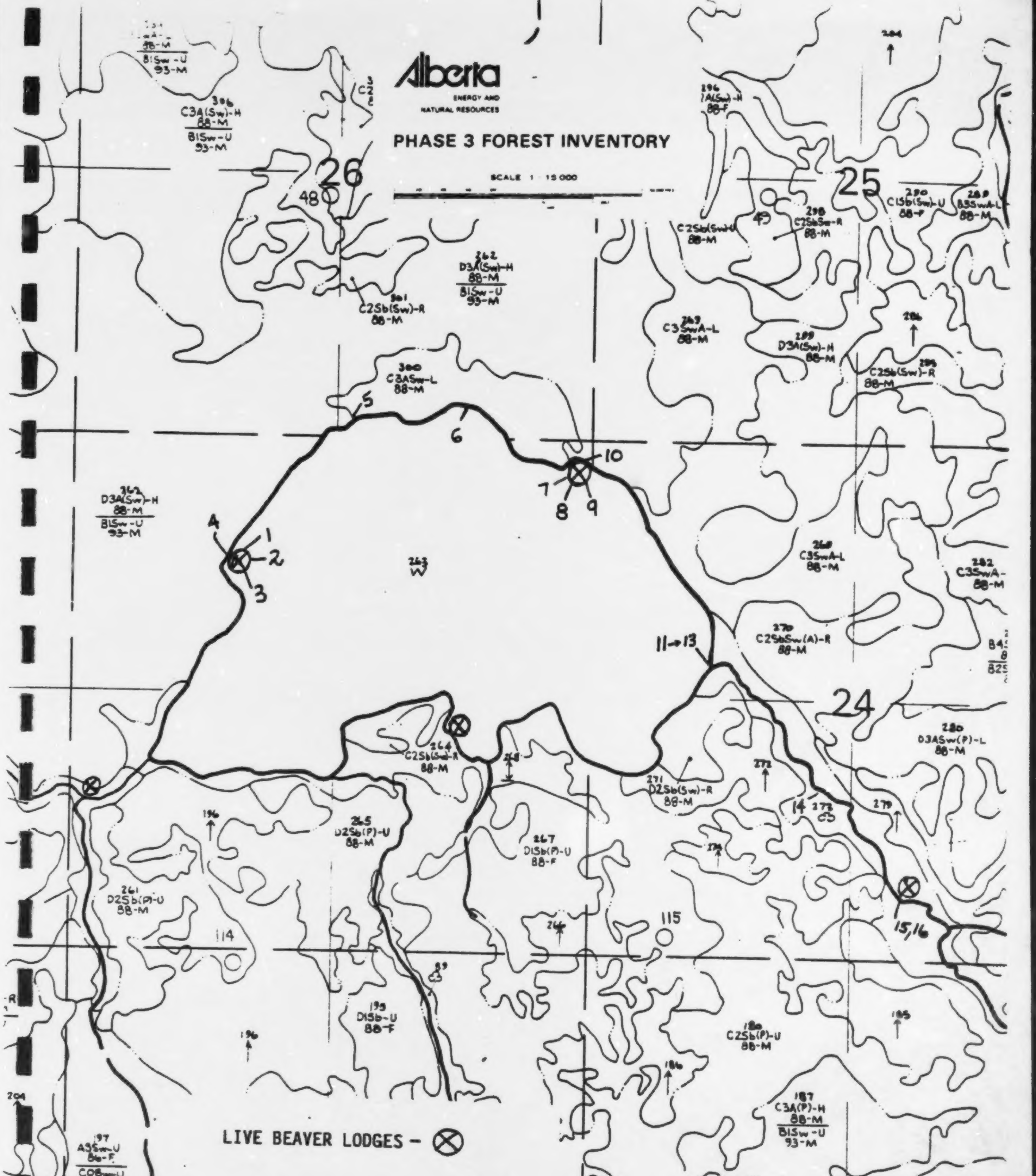
In some instances, a trapper may want to investigate an area of interest more closely. Recent aerial photos, blown up to the necessary scale, will give him the same information as flying over the area at a low elevation, except with the advantage of having unlimited time to examine details and at a fraction of the cost.

Some sample maps and how record codes may be used on them are illustrated in this text. All these maps and aerial photos are available from your local Forestry or Fish and Wildlife office.



TOPOGRAPHICAL MAP

92
91
90
89
88
87
86
85
84
83
82
81
79
Gas
Mill Lake
868
Square Lake
2025
2000
1925
1950
1975
NORTHERN ALBERTA
Gas Pipeline
Gas Pumping Sta
Gas Pumping Station
Tweedie
VR
ul River
44
45
46
47
48
49
50
51
52
53
Gas Pumping Station
Pipeline
ALBERTA
WEST OF FOURTH MERIDIAN · OUEST DU QUATRIEME MERIDIEN
Scale 1:50,000 Échelle

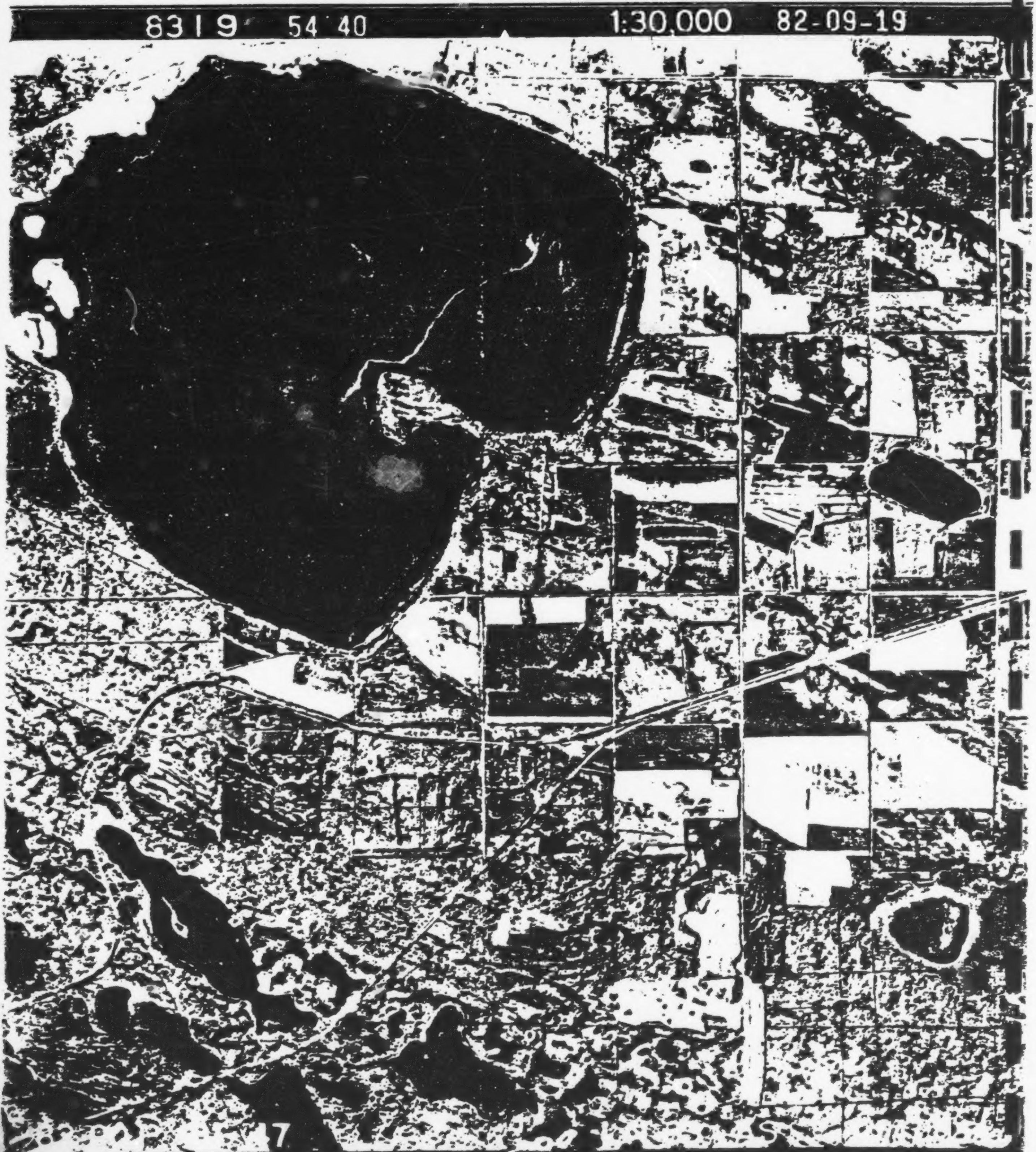


Alberta
ENERGY AND NATURAL RESOURCES
PHASE 3 FOREST INVENTORY
SCALE 1 : 15 000
26
25
24
13
48
49
114
115
1
2
3
4
5
6
7
8
9
10
11→13
14
15,16
306 C3A(Sw)-H 88-M / B1Sw-U 93-M
262 D3A(Sw)-H 88-M / B1Sw-U 93-M
301 C2Sb(Sw)-R 88-M
300 C3ASw-L 88-M
362 D3A(Sw)-H 88-M / B1Sw-U 93-M
263 W
264 C2Sb(Sw)-R 88-M
265 D2Sb(P)-U 88-M
267 D1Sb(P)-U 88-F
261 D2Sb(P)-U 88-M
271 D2Sb(Sw)-R 88-M
199 D1Sb-U 88-F
180 C2Sb(P)-U 88-M
187 C3A(P)-H 88-M / B1Sw-U 93-M
197 A3Sw-U 86-F / C0Bw-U 92-F
296 A(Sw)-H 88-F
298 C2SbSw-R 88-M
C2Sb(Sw)-H 88-M
290 C1Sb(Sw)-U 88-F
289 B3SwA-L 88-M
269 C3SwA-L 88-M
289 D3A(Sw)-H 88-M
295 C2Sb(Sw)-R 88-M
268 C3SwA-L 88-M
282 C3SwA- 88-M
270 C2SbSw(A)-R 88-M
280 D3ASw(P)-L 88-M
C3P(Sw)-L 88-M / B1Sb-U 90-M
D3AP(Sw)-R 90-M
188 B3P-R 88-M / D1Sb-U 90-M
181 C4Sw(A)-L 86-M
C2Sw(P)-U 88-M
F.L.

LIVE BEAVER LODGES - ⊗

SET LOCATION NO's 1, 2, 3, etc.

AERIAL PHOTOGRAPHS


8319 54 40
1:30,000 82-09-19
7

Trapline Management Records

More and more, the public is expecting the trapper to be a wildlife manager on his line. If the trapper is to meet this expectation and to properly manage his trapline, it is important for him to keep some record of his catch during the year and to compile and analyze these records at the end of each year. Using this information, he can then decide on the best management plan for the next season.

Records should be kept of catches each day, along with weather and other conditions. Changes in harvest become quickly noticeable when you have records to refer to. You can compare weather conditions and determine which have positive or negative effects on your trapping. Success with lures and bait, as well as effectiveness of various sets can be ascertained. These are all facts which are very difficult to remember from year to year without written records being kept. These records will become more and more valuable as a management tool in each subsequent year. If your strategy is correct, you should see a steady improvement in production, coupled with greater efficiency each year.

A sample record system is shown in this manual for you convenience. This consists of three basic forms:

1. a Trap Catch Record

2. a Fur Return Record

3. a Year End Record

Much valuable information can be gathered from these forms if they are faithfully and properly filled out.

1. The Trap Catch Record

This form will give the trapper valuable information and insight into the best trapping methods as well as clues to better manage the fur bearer population on his line.

It is especially important to keep up this form daily, as the year end record depends on information gathered on this form.

This record should be kept throughout the season by the trapper, and trap location numbers recorded on a 1:15,000 Forestry Inventory map (available from your Forestry Office). Each time a set is made, it should be recorded on the form; if the set is removed or a catch is made, the data should be carefully completed.

If the same set is reset after a catch is made, it should be recorded as a new set, but at the same location. Multiple sets at one location can be recorded with a single number on the map, but on the record form, can be recorded with separate letters (ie: 5A, 5B, 5C, etc.).

It is best to record sets or catches for each species on separate pages, as it is much easier to compile totals at the end of the year this way.

This record does not necessarily have to be filled out in the field. If set locations are recorded on a map in the field, the remainder of the information can be filled in on the form after returning home as long as it is not left too long so details cannot be remembered.

2. The Fur Return Record

A fur return record should be filled out after each sale of furs, and a final record sheet showing the totals for the season should be compiled after the last sale of furs. This form gives the trapper a record of total pelts of each animal sold and their values. It is useful for assessing comparitive values for different sales, etc.

This is valuable information for balancing revenues against expenses and for comparing total take to actual pelt sales.

3. The Year End Record

This form is filled in at the end of the season and serves as a means of compiling and analysing the year's harvest, and as a management tool for the next year's operations.

The Trap Catch Record must be kept by the trapper himself. The other forms may be kept by the trapper or if he is unsure of how to fill out the Fur Return or Year End Record, or how to interpret the information on them, it is suggested that he seek the advice and assistance of his local Fish and Wildlife Officer.

Symbol Code Used on the Forms

M - Male
F - Female
Y - Young
A - Adult
U - Unknown
TOT - Total
H - Healthy
D - Diseased
S - Starving
INC - Increasing
DEC - Decreasing
R - Red (Fox)
C - Cross (Fox)
S - Silver (Fox)
W - White (Fox)
LT - Long Tailed
ST - Short Tailed(Weasel)
E - Early (Under (Weasel
P - In Prime
L - Late (Over Prime)

NAME:

TRAP-CATCH RECORD

DATE:

Set Location Number	Set Type	Capture Device Used	Lure Used	Date Set	Date Removed	Catch	M	F	Y	A	U	H	D	S	E	P	L	Comments - Conditions - Weather - Humaneness

NAME: FUR RETURN RECORD DATE:

Species	Beaver	Coyote	Muskrat	Fox	Value	Lynx	Martin
Total Number Pelts Sold				R:			
				C:			
				S:			
				W:			
Total Value							

Mink	Muskrat	Otter	Squirrel	Weasel	Value	Wolf	Wolverine	Badger
				LT:				
				ST:				

Raccoon	Bobcat	Skunk	Other

Total Pelts & Value

NAME: YEAR END RECORD DATE:

SPECIES																													
NUMBERS TAKEN		Y	A	U	TOT	Y	A	U	TOT	Y	A	U	TOT	Y	A	U	TOT	Y	A	U	TOT	Y	A	U	TOT	Y	A	U	
	M																												
	F																												
	U?																												
	TOT																												
CONDITION (Totals)	H																												
	D																												
	S																												
PRIMENESS DATES		IN		OUT		IN		OUT		IN		OUT		IN		OUT		IN		OUT		IN		OUT		IN		OU	
POPULATION TREND	INC																												
	DEC																												
	STABLE																												
HARVEST QUOTA	THIS YEAR																												
	NEXT YEAR																												
TOTAL SETS MADE																													
MOST EFFECTIVE	SETS & (CATCH NO.) 1.																												
	2.																												
	DEVICE 1.																												
	2.																												
	LURE 1.																												
	2.																												
	LOCATION NO.'S																												

If you wish to obtain a sample copy of any of the forms shown in this manual, you may do so through your instructor, or by contacting A.V.C., Lac La Biche, directly.

*Almost any school library or government office will have a copy machine which can be used to make additional copies of these forms.

Daily Diary or Log Book

Keeping a daily diary or log book of trapline activities or other observations can prove to be a very valuable practice for the mangement of a trapline as well as providing interesting and enjoyable reading in future.

Pre Season Set Preparations

When the season opens, the trapper should be involved in setting his traps, not in searching for set materials such as anchors, running poles, etc.

Holes, den locations and beaver house entrances should be marked in advance of the season if you are going to trap under ice.

Pre baiting or scenting sets before the season opens will get you off to an early start. It may be best to bait sets several times in order to get the animals accustomed to feeding securly at the location. This can be done once a week for two or three weeks before the season opens.

Other preparations such as placing fisher or marten boxes in position, cutting and placing poles, wiring anchors or drags and driving stakes, etc. can all save a great deal of time so that, when the season opens, you only have to place the trap and fresh bait or scent and be on your way to the next set. Although not every set location can be prepared early, the majority can be. If these pre season activities are recorded in a note book and on a map, you will know in advance what equipment will be required and what sets will be made in following years. Remember, the successful trapper is a well organized trapper.

Tax And The Trapper

1. Income Tax

Method of Computing Income

You have the option of choosing between the following two methods:

(a) Cash Method:

Income is reported when received and expenses when paid.

(b) Accrual Method:

Income is reported when earned, whether or not it has been received.
Expenses are reported when incurred whether paid or not.

The method chosen must be used on a year to year basis. You have the option of changing from the cash basis to the accrual basis. However, once you exercise this option you must continue on that basis.

Tax Year

An individual's tax year ends on December 31. You are therefore required to report all your income earned for the year ended December 31.

Individuals engaged in an unincorporated business or profession including trapping are permitted to select a fiscal period which does not coincide with the calendar year but which also does not exceed twelve months in duration. For the first year of an unincorporated business a short fiscal period may be selected in order to obtain maximum tax deferral. Alternatively, it might be advantageous to have the year-end fall in the following taxation year, recognizing no income or loss from the business in the current year.

Record Keeping

a) You are required under the Income Tax Act to keep proper records of your revenue and expenditures.

b) You are also required to keep receipts as support for your expenses. If you don't, the tax department may simply not allow the deduction.

c) In order to facilitate this, a bank account should be maintained for all business transactions.

Deductible Expenses

a) Depreciation:

As a general rule, all assets purchased or built costing $200 or more should be capitalized and depreciation taken at annual rates, for example:

Buildings, generally	5%
Equipment	20%
Boats	15%
Automobiles & skidoos	30%
Chain Saws	30%
Outboard Motors	30%

New assets purchased are eligible for an investment tax credit which varies from 7% to 10% of cost. This credit is a deduction from the Federal tax payable.

b) Wages

If you hire an individual and pay him a salary or hourly wage you must deduct C.P.P., U.I.C. and income taxes and remit them to the tax department. You will have to obtain an employer number and prepare T-4's at the end of each calendar year. for your employees. From January 1, 1980, it is allowable to pay your wife a salary. The salary must be reasonable and deductions must be withheld with the exception of U.I.C. This is an excepted way of income splitting and should where possible be used. It is also a method of providing your spouse with C.P.P. benefits. Children can also be placed on the payroll. They can earn up to $1,910 per year before reducing your claim as dependents for tax purposes.

c) Workroom Expenses:

If you have a workroom in your home, a reasonable amount of the expenses incurred can be used against your business income. The amount of expense can be determined by apportioning the room to the number of rooms in the house and claiming the resulting portion of:

Insurance
Taxes
Heat and Hydro
Telephone and repairs
Mortgage interest is NOT deductible.

d) Operating Expenses

You are entitled to claim all your expenses incurred in the operation of your trapline. These include:

expenditures for gas, oil, repairs and maintenance for your wheeled vehicles, outboard motors and snowmobiles while being used on your trapline;

insurance and licence fees for the above equipment. (If these chattels receive personal use during the off season, you can claim the percentage of the cost of insurance and licence fees in proportion to usage on the trapline, i.e. truck is driven 3000 miles on trapline and 3000 for off season job, insurance cost for year is $600.00, $300.00 of this expense is deductible. This same method of calculation is used in obtaining the purchase price of a vehicle allowable as a base for depreciation, i.e. cost of truck $12,000, used 50% for trapping purposes, allowable capital expenditure for depreciation is $6,000);

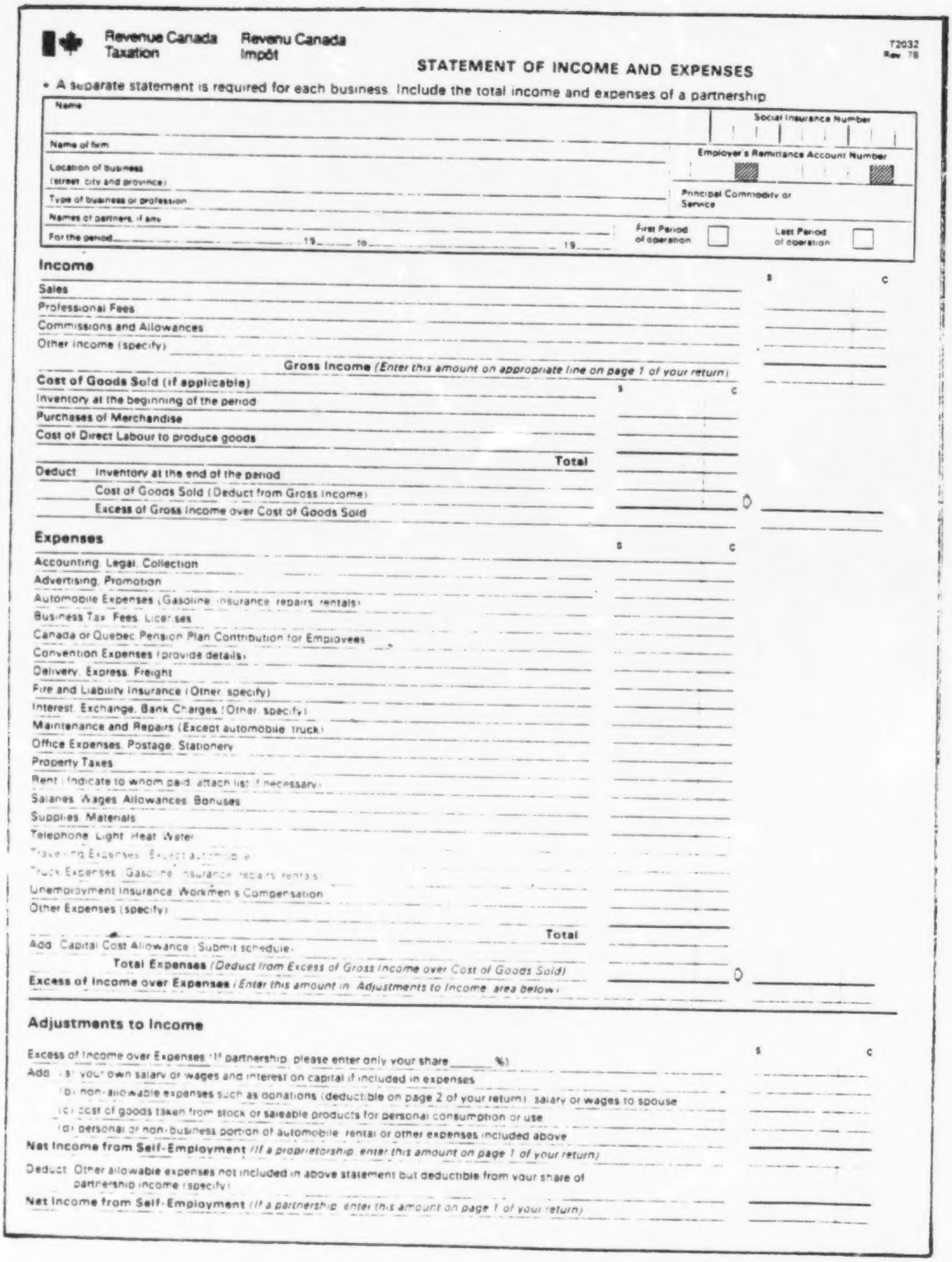
costs of trapping supplies — knives, scrapers, boards, traps, trap parts, snare wire, etc.;

repairs and maintenance including cost of heat and light for your trapline cabin, as well as taxes and insurance on premises;

membership fees in trapping organizations, costs of trapping licence, interest on loans relating to trapping activities, such as a loan to purchase traps or supplies, freight costs on trapping equipment purchased and on shipping furs to market;

expenses related to attendance at one Convention each year — room, meals, public transportation.

STATEMENT OF INCOME AND EXPENSES



Revenue Canada Taxation
Revenu Canada Impôt

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Rev. 78

STATEMENT OF INCOME AND EXPENSES

- A separate statement is required for each business. Include the total income and expenses of a partnership

Name
Social Insurance Number
Name of firm
Employer's Remittance Account Number
Location of business (street, city and province)
Type of business or profession
Principal Commodity or Service
Names of partners, if any
For the period ________ 19____ to ________ 19____
First Period of operation ☐
Last Period of operation ☐

Income — $ c

Sales
Professional Fees
Commissions and Allowances
Other Income (specify)
Gross Income *(Enter this amount on appropriate line on page 1 of your return)*

Cost of Goods Sold (if applicable) — $ c

Inventory at the beginning of the period
Purchases of Merchandise
Cost of Direct Labour to produce goods
Total
Deduct Inventory at the end of the period
Cost of Goods Sold (Deduct from Gross Income)
Excess of Gross Income over Cost of Goods Sold

Expenses — $ c

Accounting, Legal, Collection
Advertising, Promotion
Automobile Expenses (Gasoline, insurance, repairs, rentals)
Business Tax, Fees, Licenses
Canada or Quebec Pension Plan Contribution for Employees
Convention Expenses (provide details)
Delivery, Express, Freight
Fire and Liability Insurance (Other, specify)
Interest, Exchange, Bank Charges (Other, specify)
Maintenance and Repairs (Except automobile, truck)
Office Expenses, Postage, Stationery
Property Taxes
Rent (Indicate to whom paid, attach list if necessary)
Salaries, Wages, Allowances, Bonuses
Supplies, Materials
Telephone, Light, Heat, Water
Travelling Expenses (Except automobile)
Truck Expenses (Gasoline, insurance, repairs, rentals)
Unemployment Insurance, Workmen's Compensation
Other Expenses (specify)
Total
Add Capital Cost Allowance (Submit schedule)
Total Expenses *(Deduct from Excess of Gross Income over Cost of Goods Sold)*
Excess of Income over Expenses *(Enter this amount in "Adjustments to Income" area below)*

Adjustments to Income — $ c

Excess of Income over Expenses (If partnership, please enter only your share ______%)
Add (a) your own salary or wages and interest on capital if included in expenses
(b) non-allowable expenses such as donations (deductible on page 2 of your return), salary or wages to spouse
(c) cost of goods taken from stock or saleable products for personal consumption or use
(d) personal or non-business portion of automobile, rental or other expenses included above
Net Income from Self-Employment *(If a proprietorship, enter this amount on page 1 of your return)*
Deduct Other allowable expenses not included in above statement but deductible from your share of partnership income (specify)
Net Income from Self-Employment *(If a partnership, enter this amount on page 1 of your return)*

Purpose, Preparation and Use of Lures

Lures are widely used to take advantage of the animal's investigative curiosity and sense of smell.

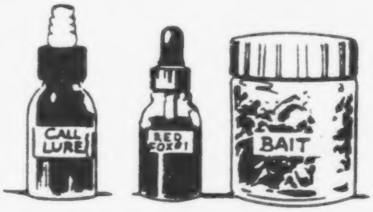
The purpose of a lure is to attract an animal to a particular "set" location from a distance.

Because of this, a lure will improve the effectiveness of many sets and will be essential in some others.

In order to employ these lures successfully, the trapper should understand the differences between them and know some basic techniqus for their use.

Lures include:

- scents
    - gland scents
    - curiosity scents
    - food scents
- baits
    - fresh bait
    - tainted bait
- urine
- visual



The lure Definition chart in this manual defines each type of lure and gives information as to why each type of lure attracts the animal and how the lure is used. The Species Lure Use chart gives more detailed information on the best lures to use for each species of fur bearer.

Animal Glands

Webster's dictionary describes a gland as "an organ for secreting a substance or substances to be used in, or eliminated from the body." The most well known of the animal glands is the Beaver Castor. This gland is located in both male and female, under the pelt, between the hind legs. After skinning the beaver, with the animal on his back, you can feel these glands on both sides of the vent. Care should be taken so that castors are cleaned of fat and meat. If pulled slowly, while steadily cutting away the tissue, the castors will remain together and should be dried by hanging over a wire in a dry place. Twist them to prevent the liquid from running out. The oil sac is next to the castor, but much more fragile. Great care must be taken or the sac will be punctured.

Both these glands are used for lure making, with the castor being more valuable for both lure making and sale. The castors should be well dried and shipped in a well-packed cardboard box or burlap bags. Do not put in plastic bags or the castors will mildew and be worthless. The castors are well worth saving.

In order of importance and ease of obtaining, muskrat glands are next on the list. Only the male muskrat has these glands, and they are valuable only in the spring when they are filled with liquid. These glands will normally adhere to the pelt, and are, therefore, easily removed. Lay these glands on a wooden stretching board in an airy place, turning them over several times while they are drying. They are a pleasant, sweet smelling gland. These glands are a good lure for use the following spring by themselves, for muskrats, or mixed with other glands for various fur bearers.

The weasel family anal glands have a nasty odor, so be careful in removing these. It is best to cut too much out, rather than cut into the glands. Mink, marten, fisher and otter anal glands are all used in lure making, and mink musk can be used by itself.

Lynx, fox and wolf glands are not as bad smelling, and it is best to leave some of the intestine attached to preserve the musk.

Bear gall is valuable in lure making, and is found attached to the bear's liver. it is a long, dark-colored gland. With a sharp knife, it is cut free of the liver and dried just like beaver castors.

Skunk glands are located, as on all members of the weasel family, on each side of the vent or rectum. Set the skunk straddling a wide mouth jar, with the glands over the mouth of the jar. Carefully slit the glands, one at a time. Use your knife blade to put a little pressure on the side of the gland. A hypodermic syringe can also be used to extract the liquid from the gland.

To save these glands, they should be put up in clean glass bottles, and preserved with a light covering of pure canning salt. Only put one kind of gland into a jar and label the jar.

Tips on Preparing and Using Lures

Although lures can greatly improve the effectiveness of a set if properly used, they will not make up the shortcomings of a poor set. If improperly used, many actually scare off potential captures. This is especially true with the use of scents, which should be used sparingly.

The use of too much scent will have the opposite effect to what is desired. Scents however, are generally more effective than bait, as it lasts longer, broadcasts the odor farther and creates greater investigative curiosity in the animal being attracted.

There are many commercial lures and scents available on the market, some of which are good but some are not. The best idea is to test any lure or scent you use for effectiveness before depending on it. In order to do this, you will need to keep some records.

It is also a good practice to vary the scent or lure used at every other trap location, especially for foxes, wolves and coyotes.

Beaver castor makes a good base for any scent mixture as it holds odor for a long time, but even by itself, it will attract most animals including other beaver. The mixture of the beaver castor and the beaver oil gland is a good lure for marten and lynx. Keep in mind that beaver castors taken from pregnant spring time female beaver are weaker than that from other beaver. Beaver flesh is a good bait to use because of its fatty consistency which holds odor even in cold weather.

Meat can be tainted for use as bait by placing it in a glass jar or can and burying it in the ground for 7 - 10 days; cover it with about 4 inches of dirt. Borax powder added to the bait will prevent it from spoiling any further after it has been tainted to the desired amount.

Livers of the animal to be attracted, rotted for the summer months, are particularly good for lynx and fox. After the livers are rotted, you may add a variety of ingredients, such as beaver castor, muskrat glands or, to give it greater cold weather drawing power, add skunk musk. A more detailed recipe is as follows on the next page:

Rot lynx livers in a jar all summer. Take a pint of this rotted liver and add six drops of Aniseed, six drops of Valerian, a small bit of powdered Catnip and six drops of lynx urine. Throw in about five tablespoonsful of powdered lynx droppings and one finely chopped beaver castor. Mix well.

To use this lure, put a daub of it on a golf-ball-sized hay ball, tie it to a stick with a string that has been saturted in beaver oil and place it at the back of the cubby in an upright position. This will lure lynx into a pen set with either snare or trap.

Another very good lynx lure is a mixure of beaver castor, muskrat musk and black poplar buds, picked just before they open in the spring.

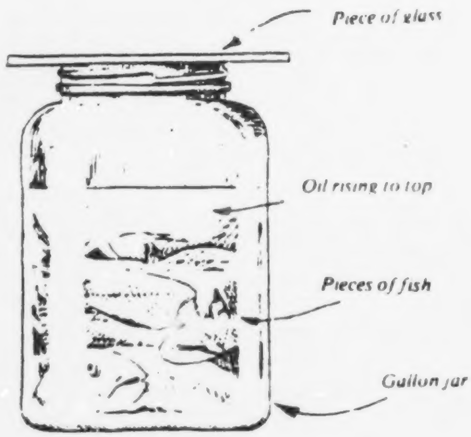
A lure made with the sexual organs and urine from a female fox, wolf or coyote during the mating season should be allowed to age for a year and should never be used at a set with bait.

Mink musk and honey also attracts most animals. To prepare this lure take the musk glands from several mink and either press the musk into one pound of liquid honey or place the entire gland into one pound of warmed liquid honey. The warm honey will help to release the musk from the whole glands. Stir the honey to ensure the musk is well mixed in.

Fish Oil is not only an important part of many lure formulas, but also a very effective "caller" when used alone. Pure fish oil is especially attractive to raccoons, mink, skunks, and foxes. Making a good supply of fish oil is another summer preparation for fall and winter trapping.

Any fatty fish will make good fish oil. Cut fish into chunks and put them into a heavy glass gallon jar. Lay a flat piece of glass over the top, with a rock to hold down glass, permitting the gases to escape and at the same time preventing flies from entering the jar. Keep the jar in full sun at all times and away from cats and dogs. A good place for the fish oil jar is on the roof of a small building.

As the solids deteriorate, oil will begin to appear on the surface. After several weeks of "sun rendering," several inches of clear yellow-to-amber-colored oil will have risen to the top.



MAKING FISH OIL

Keep jar in sun. Oil will rise to top as flesh deteriorates. Gases escape beneath glass cover.

Pour off or siphon the oil into a clear bottle. Put your gallon jar back in the sun. It is quite likely that several additional ounces can be had within a few weeks.

Try pure fish oil for taking the above named animals. Use about twenty drops at a set. Fish oil may also be used in conjunction with other lures and bait.

An excellent fox lure is lard cracklings. This is the fatty tissue of pork or beef from which the lard has been rendered. After making the set, scatter a few cracklings around in such a manner that the fox must cross and recross the trap while retrieving the lure.

A very good coyote lure can be made as follows: 5 lbs. (2.25 kg) rotted down horsemeat; 20 drops Tonquin (Asiatic) musk; enough glycerine to make a paste.

This is especially good in the cold winter months. By adding fish oil and coyote urine, you will have a lure good the year round. (Asisaic musk is now made synthetically and can be ordered from drug stores.)

Fish oil with beaver castor makes an attractive lure for fisher. Fisher are generally trapped in pens and a rabbit makes good bait.

Another good fisher lure is: Fish oil (1 pint), muskrat musk (2 glands), Oil of Aniseed (10 drops), Asofetida (10 drops).

A wolf, coyote and fox lure can be made from four ground up beaver castors, four (springtime) muskrat glands, six drops of Aniseed oil, around half a drop of skunk gland, a good handful of powdered wild catnip, mink glands (about two if small ones), a few blades of green grass, around four deer glands (from the legs) and about five pounds of meat (deer or similar).

The meat is ground up or chopped into chunks. Put this into a wooden or glass container big enough to hold four gallons. Break or grind up the glands and mix them with the canip and add to meat. If it doesn't mix well, add just enough clean fresh water to cover. This should then be put aside, covered with a screen, and left to work for the summer. Check it once in awhile to see it doesn't get too dry. When it has settled into a well-mixed mass, it can be put into jars, where it will keep for a long time. A bit of this lure will bring coyotes, foxes and wolves straight in, and will attract other animals as well.

LURE DEFINITION CHART

TERM	DEFINITION	WHY IT ATTRACTS	HOW USED
Lure	Anything used to attract or entice an animal to a given location.		
Scents	an odor which attracts or lures an animal by smell to a given location	Most animals have a highly-developed sense of smell and will home in on odors from a distance.	Scents broadcast their effect more widely than other lures and also retain a stronger odor for a longer time than baits or urine; as a result, are often more effective in colder weather.
a. gland scent	is a scent made from the glands of animals , usually from the reproductive tract	The animal is attracted to this because of sexual instinct.	Normally used alone or with visual attractor. A small quantity is generally sprinkled on or around the set.
b. curiosity scent	are scents made from oils or blends of oils and glands	The animal is attracted out of curiosity to investigate an unusual but appealing odor.	Is used to draw animal into the viscinity of the set from a distance. Sprinkle a small amount well away from the set but in the surrounding area.
c. Food scent	are scents made from food oils or extracts	The animal is attracted due to hunger or appetite.	Sprinkle a larger quantity on or near set so animal must pass through trap. May be used to enhance the odor of the bait.
Bait	a food substance which attracts or lures an animal to a given location.	The animal is attracted due to hunger or appetite.	For fresh bait, a food or curiosity scent may be used to draw in the animal. All animals can be attracted by the proper bait.
a. Fresh bait	any food substance used as bait which is unspoiled.	The animal is attracted due to hunger or appetite.	For box or cubby sets, bait is placed so the animal must pass through the trap to reach it.

LURE DEFINITION CHART

TERM	DEFINITION	WHY IT ATTRACTS	HOW USED
b. Tainted bait	any food substance used as bait which is partially spoiled so it gives off a strong odor.	The animal is attracted due to hunger or appetite.	In some sets, the bait is attached directly to the trigger (eg: for semi-aquatic species At bait station, trap or snare is placed at some distance from the bait on trail leading to or from bait.
Urine	is an animal liquid waste product used to attract or lure an animal by smell to a given location.	The animal is attracted due to several possible reasons. - sexual instinct - curiosity - territorial instinct - communication reasons	Generally used for canid sets. Sprinkle a small quantity of urine on or near a scent post or near a bait set. May be used in combination with any other lure.
Visual	an object which attracts or lures an animal by sight to a given location.	The animal is attracted by sight to investigate an unusual object.	Most effective for lynx, also canids. Place an object near the set but in a location where it can be seen for some distance and which is natural but unusual or which flutters in such a way as to arouse curiosity.

* The above lures are almost always used in some combination with one another, for example, both a scent lure and a visual lure are used in making the scent post set.

URINE
RED FOX

Species - Lure Use Chart

ANIMAL	BAITS	SCENTS	URINE	VISUAL
Beaver	Green Aspen, Willow, Birch	Beaver castor, or beaver oil glands (*and others, refer to text)	---	partially peeled sticks behind trap
Muskrat	Carrot, parsnip, apple or orange peel, cattail or lily pad root, sweet flag, bulrush or other marsh plants	Musk glands from muskrat (*and others, refer to text)	---	- floating objects near frequented area - sight of bait - light from hole in the ice
Mink	Fresh fish, fresh muskrat or beaver flesh	Fish oil scent, mink gland scent, beaver castor scent, muskrat musk scent (*and others, refer to text)	---	- dangling wing near box set - the dark hole in the box usually attracts the animal
Otter	Fresh fish	Fish oil scent, otter gland scent	---	- whole fish or artificial fish at trap
Marten	Squirrel, rabbit, beaver flesh, raspberry jam	Marten glands, beaver castor (*and others, refer to text)	---	- dark hole in box attracts animals (usually to investigate)
Fisher	Beaver meat	Fisher gland scent, beaver castor, anise, rat musk (*and others, see text)	---	- attracted to dark holes - box set
Fox, wolf, coyote	Beaver meat (tainted or fresh), entrails	Fish oil, gland lures, skunk oil (*and others, see text)	Urine from animal you are trapping	- attracted to almost any unusual but natural looking feature near a trail (eg: part tuft of grass, dirt holes)

Species - Lure Use Chart

ANIMAL	BAITS	SCENTS	URINE	VISUAL
Lynx, Bobcat	Fish, beaver meat, rabbit	Anise, catnip scent, fish oil, beaver castor and other gland scents (*and others, see text)	---	- wing or other object which twirls in the wind - grass ball - dark enclosed area (eg: cubby)
Weasel	Rabbit, squirrel, beaver meat	Gland scent from weasel (*and others, see text)	---	- dark hole in box set
Badger	Woodchuk or other rodent meat, beaver meat, tainted or fresh	Gland scent from badger	---	- dirt holes
Racoon	Beaver meat, fish, sweet corn	Fish oil (*and others, see text)	---	- dark hole in box set - wing, feather or other object which flutters in the wind

Introduction to Trap Treating

Trap treating is a recommended practice that results in three main benefits:

1. protects the trap from rust and corrosion - thus extending trap life, reducing upkeep and improving trap operaton.
2. deodorizes the trap - reducing the chance of detection by the animal and resulting in improved capture success.
3. adds a natural odor - to prevent the animal from becoming suspicious.

Precautions and Helpful Tips

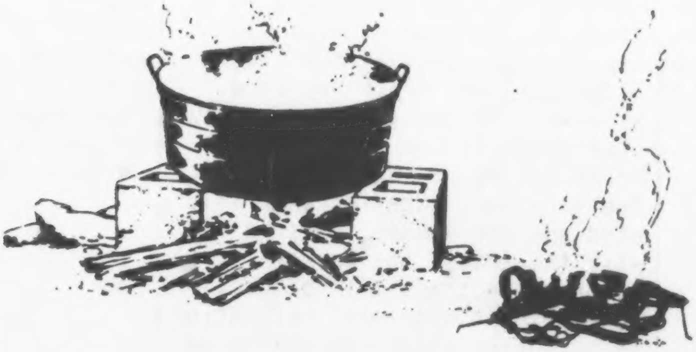
Gloves should be worn to protect the hands from hot wax and water.

It is also recommended that some form of eye protection be worn when treating traps and snares.

To deodorize gloves, just put them in the trap treating solution for a few minutes. Remove and dry.

Body grip type traps should be cleaned and dyed as described in the chart under trap treating.

However, if they are waxed, the wax must be removed from the notches in the trigger and dog and from the jaw where the dog catches when the trap is set.



TRAP TREATING

Processes	Procedure	Reason
Cleaning	To remove all foreign material from the trap. (ie: rust, dirt, blood), use wire brush, sandpaper, steel wool.	To halt corrosion and expose trap surface to take on the dye.
Boiling	Place the trap chain ring between the jaws of the trap and immerse in water containing 1 tablespoon of household lye per two gallons of water (wood ashes may be substituted for the lye, but increase the amount to at least 2 tablespoons of wood ash per 2 gallons of water). After boiling sufficiently to clean the traps, float off the oily scum by pouring more water into the container until he scum runs off over the edge of the container, (this first boiling stage should last 15 minutes to 1/2 hour) then immerse the traps in a pail of plain boiling water for a short while.	To remove the final traces of oil and other material from the trap. Starts deodorizing. To rinse off the lye.
Dyeing	Put the traps into another container. This one must have fresh water to which you add 4 oz. of logwood crystals or power per gallon of waer. The correct amount of liquid logwood dye may also be used in place of the crystals or powder. Other natural materials may be used in place of the logwood material listed above such as the bark of alder willows, poplar or other willows. In fact, the bark from most trees in the areas where traps art to be set can bu used. The more bark material that is used and the longer it is boiled with the traps, the darker colored the traps will become. However, the degree of coloration is not of critical importance as long as the metal has been protected.	To keep the jaws slightly open and allow the inside surface to be coated with dye and later, wax. Dye provides a protective coating to help prevent corrosion and to darken the trap color. Also, to mask or replace any remaining scent. Some trappers prefer dark colored traps in certain conditions.

TRAP TREATING

Processes	Procedure	Reason
Waxing	Use a good grade of commercial trap wax. Melt the wax in a separate container. A small (pea size) piece of spruce gum may be added to the wax.	To provide a thin coating to protect from rust and provide a faster closing action by reducing friction between the trap parts. Spruce gum helps to toughen the wax. Very hot wax leaves a thin covering on the trap.
	When the wax is very hot (smoking), use a stiff wire hook to remove the traps from the boiling dye.	
	Be sure to allow the moisture to evaporate from the hot trap and immerse it in the hot wax. (The wax may be applied with a brush).	Moisture on a trap placed into the hot wax may cause an explosion. (Think Safety)
	Remove the trap from the wax, allow excess wax to drip back in to the container. Allow to cool.	To help prevent the traps from picking up undesirable odors.
Handling and Storage	Do not handle the traps with your bare hands or anything which may impart an undesirable ofor to the traps. Hang traps in a dry place free for foreigh odors.	To help prevent the traps from picking up undesirable odors.

*Depending on circumstances and available equipment, the trapper may have to vary the procedures outlined somewhat.

SNARE TREATING

Snare treating is a recommended practice that results in three main benefits:

1. Reduces light reflection from the snare so it will be less visible to the animal.

2. Removes undesirable odors to make the snare more difficult for the animal to detect.

3. Imparts natural odors to mask or replace any remaining objectionable scent, so the animal's suspicion will not be aroused.

Process	Procedure	Reasons
Boiling	Immerse the snares in water and add materials natural to the area (ie: bark, moss, plant leaves, spruce needles), and bring to a boil for 15 - 20 minutes. The solution should have a color of tea. Use of logwood crystals is not recommended. If oil scum is present, remove it by adding water until the skum overflows the container.	To remove foreign odors and replace them with natural odors. To avoid dying the snare a dark color as this will make it more visible. To avoid contaminating the snare when it is removed from the water.
Handling and Storage	Remove snares from the water and dry them thoroughly. Handle the snares only with a strong wire hook or with descented gloves. Hang in a dry place free from undesirable odors.	To prevent snare from freezing up in cold weather. To help prevent the snare from picking up any undesirable odors.

Snare Construction

For a snare to perform efficiently and reliably, it must be constructed from good quality material and be assembled with care. The basic components of a snare consist of a cable, lock, figure 8 and ferrules (see diagram). Special attention should be given to make sure that each part of the snare is the correct size and strength (refer to Snare Making Chart for details).

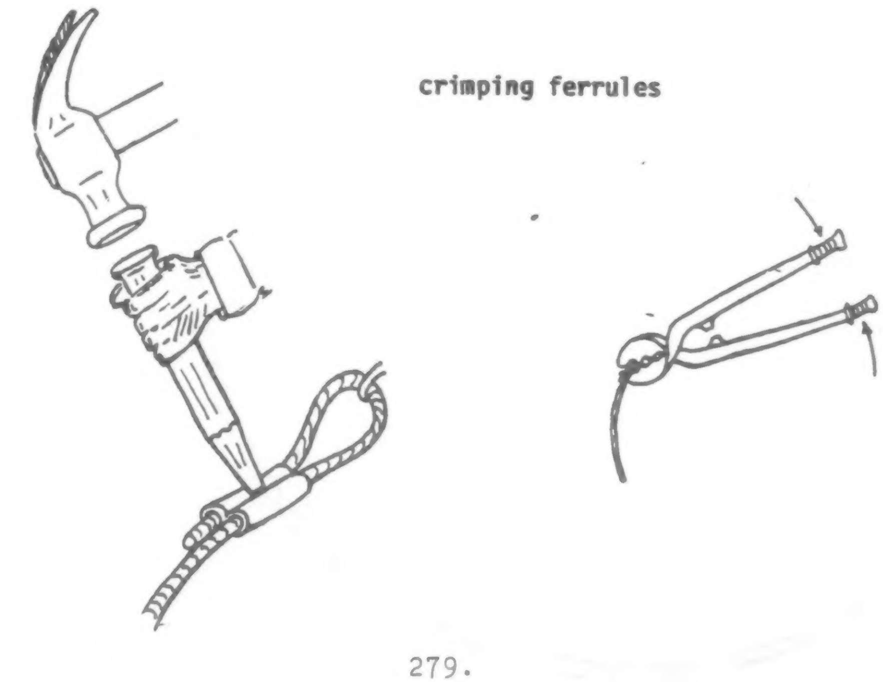
All the snares you will need for the season should be made up ahead of time and be treated so they are ready for use.

Be sure the cable is not twisted when making the snare, you can avoid this by laying the cut lengths on a flat surface and making sure they lay flat before assembling the snare.

If you require a lot of snares, it is well worth purchasing a ferrule crimper and a very good pair of cable cutters.

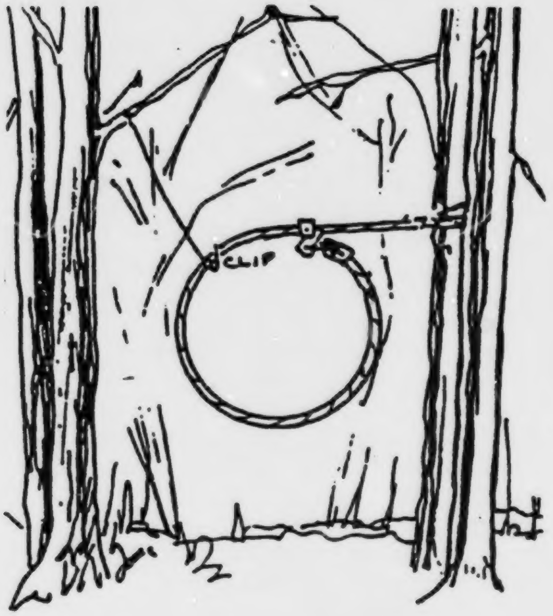
Snares should not be reused except for the lock if it is in good condition. Remember, any money you might save by reusing snares could be lost many times over by the loss of a single animal.

Loop size, height of the loop off the ground and other factors are critical to the humane and effective operation of a snare. (See the Snare Making Chart and the Humane Methods Chart for further details on the do's and don't of using snares). Also remember any device is only as good as the materials used and the knowledge and care with which it is used.

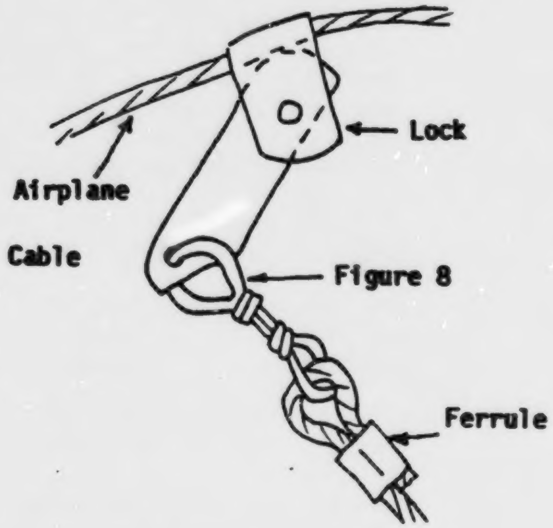


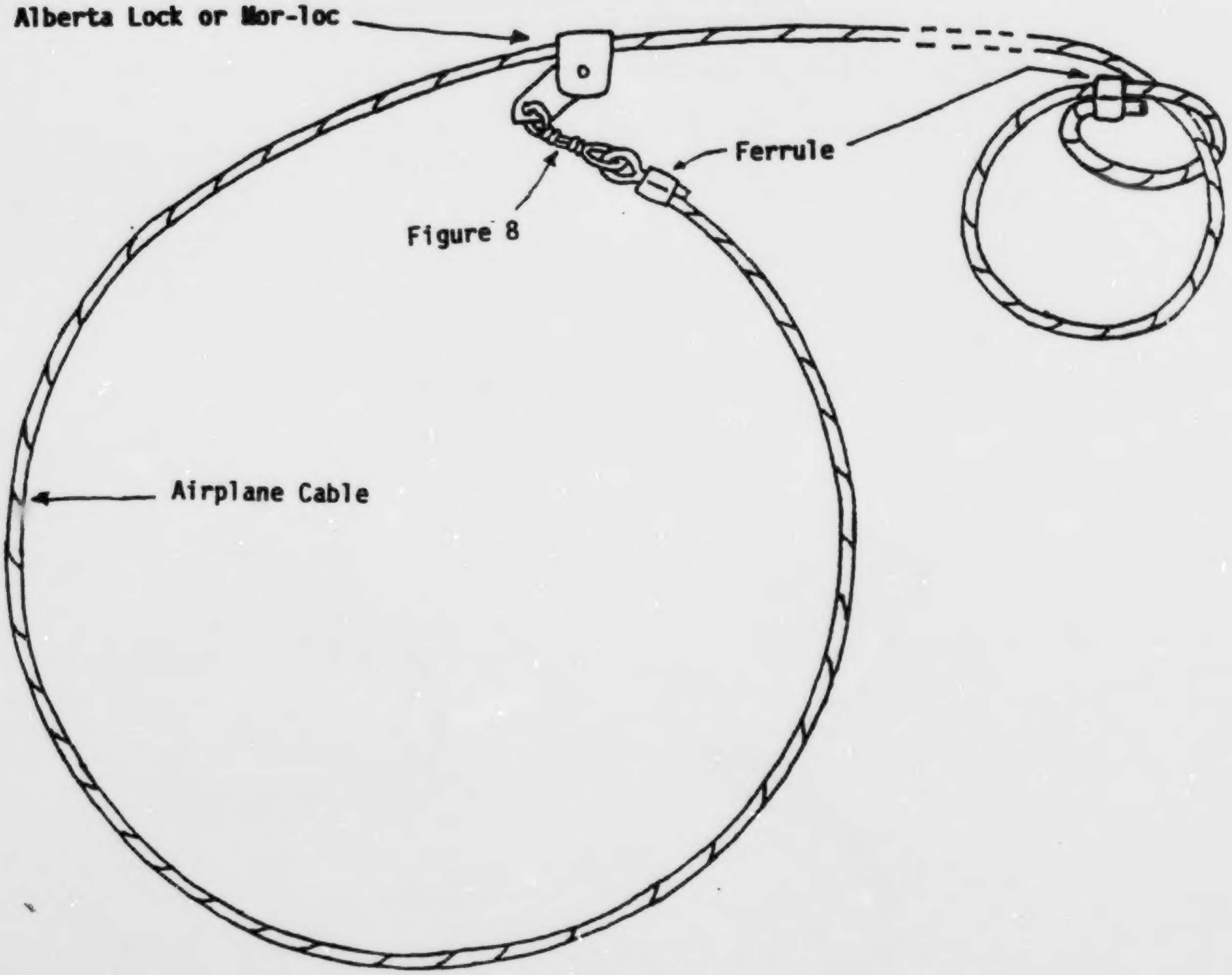
crimping ferrules

Snare Construction

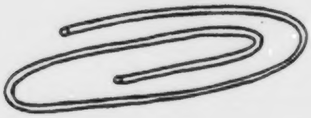


Close Up Of Alberta Lock or Mor-Loc Type Lock on Snare

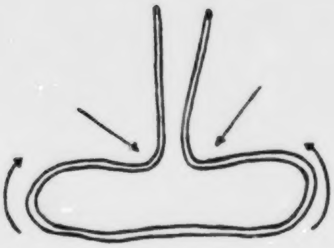

Lock
Airplane
Cable
Figure 8
Ferrule


Alberta Lock or Mor-loc
Ferrule
Figure 8
Airplane Cable

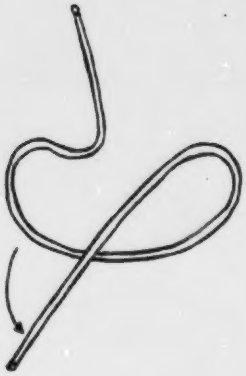
DETAILS OF FIGURE 8 CONSTRUCTION



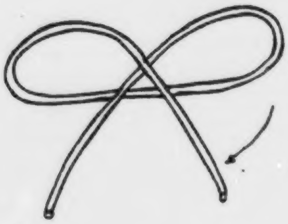
Correct wire
cut to length



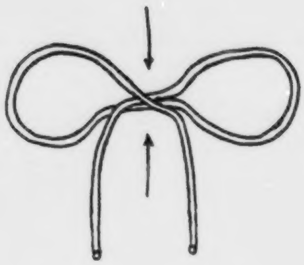
Starting to bend the wire



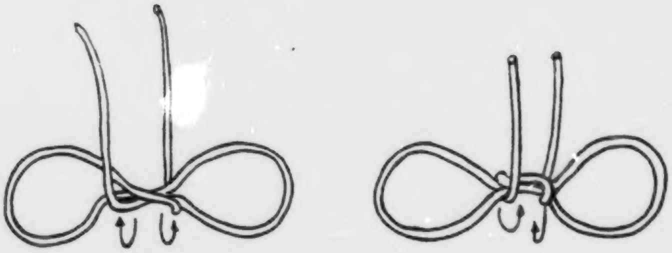
One end of Figure 8 bent
down to make one end



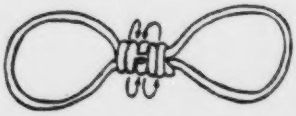
Both ends of wire bent down
to start forming the figure 8



Forming centre of Figure 8
prior to winding the ends of wire
around the Figure 8



Winding the wire around the
Figure 8 to make the
final form



Finished Figure 8

SNARE MAKING CHART

Animal	Cable Material	Cable Length	Lock	Figure 8 Size	Ferrule Size	Loop Size	Bottom of Snare Loop to the Ground in Inches
Wolf	3/32" airplane cable	100 inches 10' - 12' for toggle	Med. or large Nor-lock or Alberta lock	14 gauge galvanized wire - Figure 8 - 2 1/2" - 3" long	3/32 Aluminum	20" inches or more	14" to 16" from ground
Coyote	3/32" airplane cable	67 inches	Med. Nor-lock or Alberta lock	16 gauge galvanized wire Figure 8 - 2 1/2" long	2/32 inch Aluminum	14 inches	12 inches from ground
Fox	1/16" airplane cable	44 inches	Small Nor-lock or Alberta lock	18 gauge galvanized wire - Figure 8 - 2" long	1/16 Inch Aluminum	10 inches	8 inches from ground
Lynx	1/16" airplane cable	44 inches	Small Nor-lock or Alberta lock	18 gauge galvanized wire	1/16 Inch Aluminum	8" - 10"	12 inches from ground
Squirrel	16 lb. test Williams Monel steel wire	18 inches	Nil	--	--	1 3/4" no larger	3/4 inch to 1 inch from pole
Beaver	7 gauge steel cable	36 inch plus double 18 ga. tail wire	Adams Beaver lock	18 gauge galvanized wire - Figure 8 - 2" long	1/16" Aluminum (if used)	8" - 10"	3 inches from ground in bottom of run under water

Humane Trapping

WHY SHOULD I TRAP HUMANELY?

WHAT IS HUMANE TRAPPING?

WHERE IS THE BEST LOCATION FOR MY SETS?

HOW CAN I TELL IF AN ANIMAL HAS DIED HUMANELY?

WHAT TRAP SHOULD I USE?

HOW CAN I RELEASE AN ANIMAL UNHARMED?

WHAT IS A TRAPPERS CODE OF ETHICS?

WHAT ARE THE BEST SETS TO USE?

HOW CAN I AVOID CAPTURING UNWANTED ANIMALS?

HOW CAN I BE SURE MY SNARES ARE HUMANE?

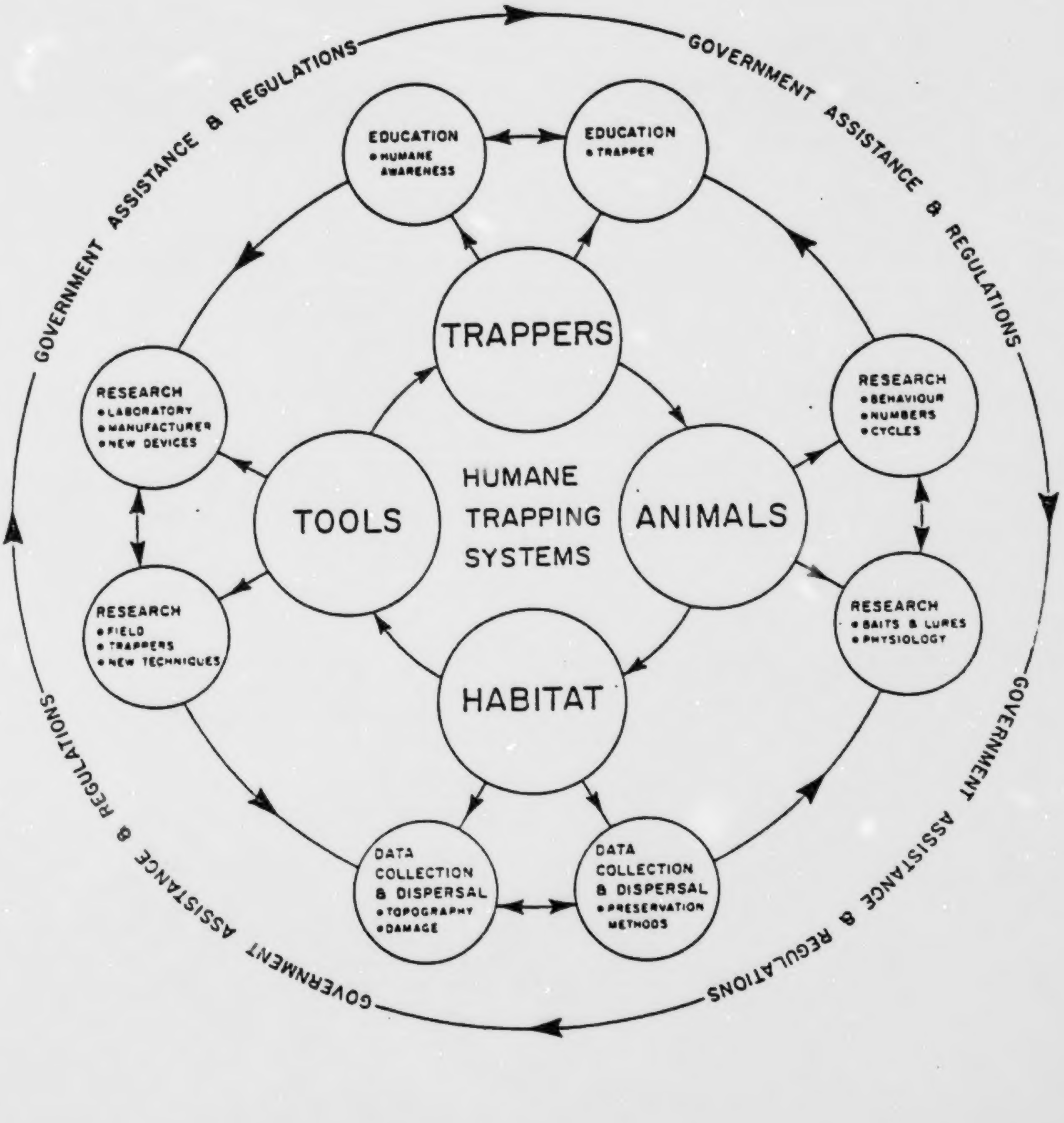
HOW CAN I DISPATCH OR RELEASE A LIVE CAUGHT ANIMAL HUMANELY?

Lesson Objectives

To provide the student with:

1. The definitions of important terms relating to humane trapping.
2. The reasons for humane trapping practices.
3. A Code for Responsible Trapping.
4. Up-to-date humane trapping techniques

THE TRAPPING PROCESS


GOVERNMENT ASSISTANCE & REGULATIONS
GOVERNMENT ASSISTANCE & REGULATIONS
GOVERNMENT ASSISTANCE & REGULATIONS
GOVERNMENT ASSISTANCE & REGULATIONS
EDUCATION
• HUMANE AWARENESS
EDUCATION
• TRAPPER
TRAPPERS
RESEARCH
• LABORATORY
• MANUFACTURER
• NEW DEVICES
RESEARCH
• BEHAVIOUR
• NUMBERS
• CYCLES
TOOLS
HUMANE TRAPPING SYSTEMS
ANIMALS
RESEARCH
• FIELD
• TRAPPERS
• NEW TECHNIQUES
RESEARCH
• BAITS & LURES
• PHYSIOLOGY
HABITAT
DATA COLLECTION & DISPERSAL
• TOPOGRAPHY
• DAMAGE
DATA COLLECTION & DISPERSAL
• PRESERVATION METHODS

Humane Trapping

INTRODUCTION

Althouth the term "Humane Trapping" has been widely used in recent years, its precise meaning may not be well understood. In order to help overcome this problem, some terms require definition.

"humane" - to treat with compassion

"humane trapping" - trapping furbearers by holding or killing the animal in the most compassionate manner. Humane trapping results in the least possible amount of suffering and avoids the killing of animals needlessly.

"humane death" - to quickly render an animal irreversibly unconscious* until dead
*when unconscious, an animal is not aware of pain and does not experience stress.

"humane holding" - holding an animal with the least possible amount of pain or stress.

"target animal" - a furbearing animal the trapperr intends to capture.

"non-target animal" - an animal which the trapper does not want to capture (any bird, game or domestic animal, out-of-season, unprime or unwanted furbearer).

"furbearer" - those animals defined by the Wildlife Act as a furbearing animal or furbearing carnivore.

"kill threshold" - the point beyond which death occurs in an animal
(the amount of force required to reach the kill threshold will vary from animal to animal and will also depend upon the location on the animal that the force is applied)

THE REASONS FOR HUMANE TRAPPING

Introduction

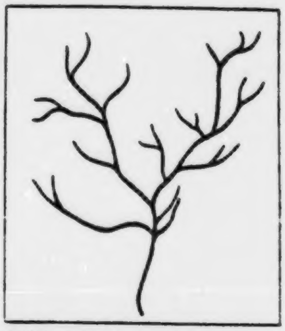
Humans are endowed with a conscience and the intelligence to know the difference between right and wrong. Our society believes therefore, that it's members are responsible for treating animals with compassion.

All furbearers are mammals, as are human beings. They have highly developed nervous systems which, like our own, have a variety of nerve endings as shown below. If overstimulated, these nerves will send pain messages to the brain and cause the animal stress.

SPECIALIZED NERVE ENDINGS IN THE SKIN

TOUCH - Meissner's Corpuscle

TOUCH - Nerve Plexus around Hair



PAIN - Free Nerve Ending

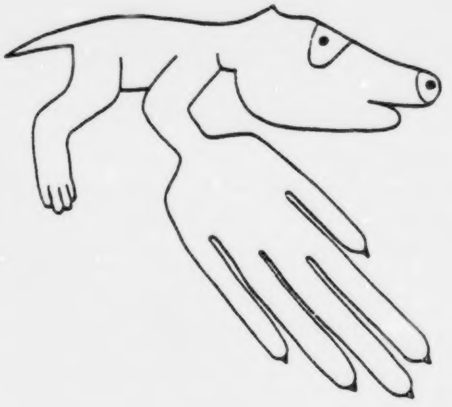
HEAT - Ruffini Ending

DEEP PRESSURE - Pacinian Corpuscle

COLD - Bulb of Kraus

The sensation of pain acts as a warning to the animal to avoid dangerous situations. Obviously, any animal that does not feel pain will not survive long in the wild.

Those areas of an animal which have the the greatest number of nerve endings are capable of feeling the most pain. The drawing below shows a distorted outline of a raccoon's body indicating which parts of the body send the most touch messages to the brain.



Scientific tests have shown that the raccoon's front paw is as sensitive to touch as our own human hand. This evidence shows that raccoons would be more humanely taken in killing-type traps than in foot-holding devices.

Furbearing animals are capable of experiencing stress in a similar manner to human beings. Stress will result when the animal's system is mobilized for action but the trap restrains the action. The suffering from pain, fear, hunger, cold, thirst and other stresses remain as long as the animal is alive and held in a trap.

The trapper must learn to recognize the symptoms and signs of pain and stress in order to ensure that his methods are humane, regardless of whether the animal being observed is dead or alive.

When an animal is found dead in the trap, many trappers assume that it has died quickly and humanely - this may not be the case!

It should also be kept in mind that wild animals may not express their pain in a manner similar to that of a domestic animal or a human. For example, a wild animal may remain quiet, despite its pain, for fear of drawing attention to itself. It may appear to be curled up comfortably sleeping when, in fact, it may be desperately trying to conserve body heat.

Public Relations

Associations

Many people consider wildlife to be a natural heritage and the responsibility of all individuals, hence they are concerned with the methods by which furbearing animals are taken for their pelts. Much of this concern is directed toward the continued use of the standard steel-jawed foot-hold trap. Humane groups have been organized which promote the humane treatment of furbearing animals. Some of the more prominent groups are:

S.P.C.A. - The Society for the Prevention of Cruelty to Animals

C.A.H.T. - The Canadian Association for Humane Trapping

W.W.F. - World Wildlife Fund

- Trappers associations representing the provinces and territories across Canada

For the most part, these groups are moderate in their approach and serve a necessary and useful purpose by pressing for improvements in trapping equipment and methods. Many beneficial changes have occurred because of their influence.

For instance, their criticisms and encouragement prompted governments to fund Trapper Education Programs which teach humane harvest techniques, furbearer management and conservation, fur handling, use of equipment and more.

The action of humane groups and the concern for the humane treatment of animals does not mean that the industry will be banned. Humane killing techniques have been developed and regulated for livestock yet this has not decreased the number or size of slaughter houses. It has made the industry more acceptable!

Alberta S.P.C.A. Policy

The Alberta S.P.C.A. has submitted the following statement of their stand in relation to humane trapping.:

TRAPPING PHILOSOPHY - A HUMANE VIEW

(Alberta A.P.C.A. Statement - June, 1984)

In general, all humane societies proceed from the premise that people have no right to inflict unnecessary distress upon animals. In the most popular usage "animals" has become understood to refer particularly to mammals. Since humane societies are not concerned primarily with the regulation of industry, it is generally recognized by most humane societies that trapping has it's place in the industrial world. It is also recognized that animals other than fur-bearers are routinely captured and destroyed by the methods and devices identical to those employed for target fur-bearers.

"In common with other humane societies around the world, the Alberta S.P.C.A. considers the conventional steel leg-hold trap as an antiquated, inhumane device that could, and should, be phased out as soon as possible in favor of more humane alternatives that are either presently available or are technologically feasible. It is recognized that improved (humane) restraining devices have their place as alternatives to the conventional steel leg-hold trap, particularly where killing traps, especially for large animals, would be very dangerous to people."

"Humane societies, including Alberta SPCA, consider it incumbent upon the industry, together with governments, to ensure that methods and devices used in trapping are as humane as possible. This is the area where governments and the industry must co-operate in ensuring that adequate research is properly funded and carried forward on a high priority basis. Devices that will be proposed as alternatives to the conventional steel leg-hold trap must be humane, practical, efficient and sufficiently enconomically competitive to gain trapper acceptance. Programs presently in place must be continued and expanded. These must include mandatory trapper training for beginners, humane education of trappers, realistic licensing controls and regulations for resident and registered trappers, inventor assistance, and a realistic trap exchange program."

"The Alberta SPCA welcomes the opportunity to present a humane philosophy for inclusion in the trapper training manual, and anticipates the opportunity to be informed of, and have input into, research and development of humane trapping devices and techniques of capture."

The following are some key extracts from the humane trapping policy of the Alberta SPCA Policy on Humane Trapping (extracts only).

I. "The Alberta SPCA believes all forms of trapping must be done responsibly, efficiently and by humane methods that either capture the animal alive and without injury, or produce rapid, painless death."

II. "To alleviate animal suffering, the Alberta SPCA insists on the abolition of cruel traps and cruel trapping methods and the introduction of humane trapping devices and humane trapping methods."

V. To promote the use of more humane trapping devices, the Alberta SPCA believes a program of trap exchange and/or replacement ought to be initiated and supported by Government to replace trappers' outmoded traps with more humane trapping devices as such devices become available. Each trap exchange/replacement program to be completed within a maximum of 2 years."

VI. "In situations where animals are to be trapped, the Alberta SPCA believes all traps set under the provisions of a Resident Trapper's License must be visited at least every 24 hours; traps set under the provisions of a Certificate for Registered Trapping area must be visited at least every 72 hours."

VIII. "Trapping devices shall be available only from authorized agencies, outlets or representatives on proof of ownership of a valid license or certificate, or valid authorization to trap under the sponsorship of a licensed trapper."

What is C.A.H.T.?

Founded in 1953, the Canadian Association for Humane Trapping (C.A.H.T.), is a non-profit organization whose aim is to eliminate inhumane methods of taking furbearing animals. CAHT receives no government funding and is totally dependent upon public donations and bequests.

CAHT is not against trapping per se. As its name implies, it is for humane trapping, and has always taken a positive approach to solving the problems connected with trapping. To achieve its goal of lessening, and eventually eliminating trapped animal suffering, the CAHT is committed to using the following methods:

- obtaining and disseminating accurate information regarding methods of taking furbearing animals;
- encouraging the use of any traps or other devices which are deemed to be more humane than existing traps or devices;
- seeking the co-operation of the appropriate provincial departments, trappers' organizations, and individual trappers in testing and encouraging the use of more humane trapping methods;
- initiating and encouraging research into humane trapping methods
- involvement in, and encouragement of, trapper education.

CAHT Programs Include:

Trap Exchange program (temporarily suspended)
Funding for trap Testing and Development (ongoing)
Conibear Trap Modification Instruction (ongoing)
Trap Inventor Assistance (ongoing)
Trapper Education (ongoing)
Public Information and Education (ongoing)
Legislative and Regulatory Reform (ongoing)
Humane Trapping Progress Award (ongoing)

For more information about CAHT, or to be placed on the complimentary mailing list, write:

CAHT Box 934, Station 'F'
Toronto, Ontario M4Y 2N9
Telephone: (416) 922-7030

World Wildlife Fund (Canada)

The following material is excerpts taken from notes for an address to the Dene Nation Pan-Northern Conference on Fur Trapping, Yellowknife, N.W.T., August, 1984.

By Monte Hummel, Executive Director, World Wildlife Fund, Canada

> "We are not an animal welfare group, an animal liberation organization, or a humane society. We are not opposed to hunting or harvesting wildlife PROVIDED SUCH USE OF WILDLIFE IS SUSTAINABLE. We believe such harvesting practices must go on at a level which can be continued well into the future without depleting the population being harvested.
>
> World Wildlife Fund has become the most respected conservation organization in the world. We are a network of national organizations in 26 countries which has raised over $100 million dollars for 4000 conservation projects. The black and white giant Panda Bear - one of the most endangered species in the world - is our symbol. Prince Phillip, who spends about 1/3 or his time working for us, is our international President.
>
> Here in Canada, we have supported over 400 projects right across the country. We have specialized in co-operative research with northern communities on species such as arctic fox, walrus, polar bear, muskox, harp seal, caribou, Gyrfalcons and Peregraine falcons. You may have heard about our "whales beneath the ice" program - a $2 million dollar set of projects working right now on Beluga, Narwhal and Bowhead whales in cooperation with communities throughout the Canadian arctic.

World Wildlife Fund is advised by over 1500 scientists from around the world, and we insist on good wildlife surveys to back up management plans. For example, our independent information indicates that the harvest of whitecoat harp seal pups, at the present levels, IS sustainable.

New attitudes are growing quickly in Europe and North America where more and more people, particularly city people, are opposed to the killing of wildlife. They feel it is cruel and unnecessary. They are well=intentioned, intelligent people and regard themselves as sensitive and sophisticated. I hope you can understand that given THEIR LIFESTYLE where the necessities of life are purchased at stores, they find it difficult to understand that anyone actually depends on killing wildlife for such necessities as food, clothing or cash income. Europeans in particular have seen their countries reduced to industrialized wildlife wastelands by overexploitation in the past. They see Canada as a still wildlife-rich country but fear that we are making all the same mistakes Europeans did.

There are many groups who express concern for the welfare of animals and so they work to prevent this suffering. This concern for the welfare of animals has found widespread and influential support. They have several important themes some of which are particularly important to the anti-trapping movement and that is HUMANE TRAPPING. You may be suspicious of such groups, but if they are honest, they are not opposed to trapping itself. They are opposed to certain METHODS of trapping, especially by leg hold traps. They promote alternative methods, usually those which kill the trapped animal as quickly and painlessly as possible. There are different points which each group emphasizes and furthermore there are important splits and differences of opinion within them.

You can earn great public credibility by strongly accepting the need for more humane traps, and by offering to try them whenever they are practical. If this is your position already, make it better known. If you do not, my best guess is that WITHIN TEN YEARS NO WILD FURS WILL BE SOLD ON THE EUROPEAN FUR MARKET. You will be under increasing world pressure to police yourselves and not allow situations to develop where wildlife populations are being overharvested. Such a situation only provides ammunition for groups who don't want resource users to be resource managers. It also allows animal welfare groups to say they would LIKE to support the use of wildlife, but unfortunately such use is just not responsible. Don't let them say this about you, because you have not allowed it to happen.

Take your case to the public and tell the world your side of the story. But don't get sucked into name-calling or bad mouthing your opponents. Instead emphasize the positive steps you have taken to respond to the legitimate concerns of your critics. People who are intolerant and extreme are held in suspicion. People who are reasonable and fair are convincing. You want to be convincing.

The world is watching, watching to see what Canadians are going to do with one of the last areas of the planet holding an abundance of wildlife. It's a crucial time. I honestly believe your livelihoods and culture are on the line. I wish you good luck"

WORLD WILDLIFE FUND
© CANADA

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Other Animal Related Organizations

A few groups seem to oppose any consumptive use of furbearing animals.

These groups represent a small minority of the population at the present time. In fact, the vast bulk of the population - both here and abroad - is either unaware of the issues or undecided on their stand. The action of trappers, from here on, may well help them to make up their minds.

An important consideration, then, is the responsibility of the trapping profession in the eyes of the public.

The adoption of more humane trapping techniques will enhance the reputation of the fur industry, whereas the refusal to adopt better and improved methods will only encourage contined public outcry. If animals did not suffer as a result of being trapped, the number of people critical of trapping would be greatly lessened.

In order to better comprehend the wide variety of attitudes held by different people or groups toward animals, refer to the accompanying chart "An Overview of Animal Related Organizations" with some guidelines for recognizing patterns on Page ________ of this manual.

An Overview of Animal-Related Organizations, With Some Guidelines For Recognizing Patterns

by Katherine B. Morgan

The space allocated to each category does not reflect either the number of organizations [illegible] type or the number of people who would agree with the values described

It is not possible to depict here the gradations of ethical values within organizations any more than it is easy to categorize one's own or another's attitudes towards animals commonly regarded as being vermin, prey, dangerous, endangered, useful, loyal, edible, cute, old, pet, etc.

ANIMAL EXPLOITATION

"Animals were put here for our use or abuse. They are our absolute property. They probably don't perceive pain as we do and even if they could it doesn't matter."

Groups advocating or conducting activities which are illegal (for the most part) in this country. Most of these were not prohibited in the past and may not now be so in other countries and cultures. Most involve the pain or death of animals just for the fun of the spectators.

Bull fighting
Dog fighting
Cock fighting (legal in some states)
Live pigeon target shooting
Killing or injuring horses etc. for the movies or TV
"Sports" which pit animals of some kind against another kind

The line between abuse and use exists in the mind of the classifier as well as within the legalities and rules of the industry or sport.

Breed carefully for contests. Eventual suffering of animal unimportant.

Breed just to make money

Don't care in what ways or how traumatic the ways living creatures are killed

Breaking present laws or rules

The ends justify the means. We have a right to have fun and do whatever we want with and to animals even if it means breaking the rules or the law.

ANIMAL USE

Animals are here for our use but we must be responsible about them (at least until we think our needs are more important than theirs). We should attempt to spare them pain and suffering if possible.

To insure minimal animal abuse and to be fair, all groups have rules by which their sports or hobbies are conducted. Some are regulated by law. The trend is for rules to become more stringent and for there to be more censure for those people not abiding by them.

Groups promoting
Hunting
Trapping
Fishing
Rodeos
Exotic animal keeping
Horse and dog sports
Various other kinds of animal events
Pure breeds of dogs, cats, horses, livestock, etc.

Associations representing industries such as commercial pet breeders, laboratory animals, livestock producers, game farmers, circuses, zoos, horse and dog racing, etc.

Wildlife "conserve so can harvest" groups

The increasingly vocal anti-dog organizations

At best hobby and sport breeders breed carefully for best genetic and health potential, cull, socialize, choose responsible owners and will take back offspring if home doesn't work out. At worst breed just for glory or to support expensive hobby.

Advocate the killing or harvesting of animals, birds, fish, etc. for food or other uses. Killing should be as swift and painless as possible.

Less likely to want present laws increased or strengthened. May have fought any regulation at all. Insist they "can police their own houses."

ANIMAL CONTROL

"We're here to enforce the laws, ordinances, and regulations agreed to by our lawmakers. No more, no less. It's not our fault people are irresponsible."

Municipal and county animal control agencies, state and federal wildlife, livestock disease control and other regulatory agencies. The USDA (enforcement agent for the federal Animal Welfare Act), state, regional and national animal control organizations and federations.

Usually have trouble getting the existing regulations obeyed. In favor of more regulation if sensible and funds provided for enforcement. Beset by pro and anti-regulation individuals and pressure groups.

Local animal control agencies may choose to adopt many or all of the principles used by animal welfare shelters and programs.

May provide animals for research

Veterinary organizations

More and more advocating or encouraging/requiring spay/neuter

Required to destroy surplus animals

Work within the existing laws and system to accomplish goals. Publicize and document animal abuses and needs to raise public and official consciousness to get changes made.

The ends do not justify the means. The very basis of our system of government is the premise that no matter what the issue, people can't just take the law into their own hands. There are means available to redress wrongs and to initiate and change rules, regulations and enforcement levels.

ANIMAL WELFARE

"People should treat each animal as kindly as possible; they should be required to do so. If they can't or won't we have a duty to look after the suffering and homeless."

National groups working for all animals or for specific species or issues. State and regional federations of humane societies.

Independent local humane societies, SPCAs, animal welfare leagues, etc., dog breed rescue groups. Those with shelters cannot be too far ahead of local value systems as they are dependent on the public for operating funds. Hunters, rodeo fans and ladies with fur coats are often valuable supporters of pet animal welfare.

Local animal welfare agencies may contract with governments to conduct animal control programs and/or house impounded animals. Usually have more stringent adoption requirements, and may keep animals longer.

Will not provide animals for research

Require spay/neuter. Believe that as there are too many pet animals almost no one should have the right to breed them.

Willing to euthanize surplus pets rather than let them suffer

ANIMAL RIGHTS

Animals have intrinsic rights; these should be guaranteed just as ours are. These rights include not being killed, eaten, used for sport or research or altered in any way.

National and local animal rights groups. Anti-vivisection societies. Private non-profit non-euthanizing organizations with or without shelters. Home-based "save a life" rescue schemes and animal old age homes. Any local or national group devoted to saving something that they will not consider killing under any circumstance.

Local groups without shelters may espouse the more liberal causes and speak out against rodeos, factory farming, hunting, trapping, use of animals in research, etc.

Wildlife "save no matter what" groups

Divided between regulationists willing to work for the regulation of activities such as rodeo, research, etc. and abolitionists calling for their total ban. May blame or even hate animal control/animal welfare groups for "compromising."

Depending on each individual's sensitivities and priorities, members do not hunt or patronize entertainments or sports involving animals, and are willing to forgo furs, meat, eggs and milk products, leather, the results of medical research or production involving animals, e.g. vaccines, most cosmetics, etc.

Some would say pet animals have a right to breed. Most would require spay/neuter.

Unwilling to sanction any taking of life. This may have philosophical and/or empathetic origins.

May believe the law is for "the other fellow." May include self-styled anti-cruelty investigators and individuals who "rescue" strays and cruelty cases without benefit of due process.

ANIMAL LIBERATION

Animals should not be forced to work or produce for our benefit in any way. We should try to eliminate all types of animal use as well as abuse.

Groups openly calling for animal liberation. These may or may not feel that this can be accomplished only by a complete restructuring of society's economic base and property rights. Some call themselves "activists," and may condone or encourage illegal methods, civil disobedience or even violence.

Clandestine underground groups using illegal and sometimes violent activist tactics. Increasingly in England where animals of all kinds have been liberated in raids and "blood sports" activities blocked.

Some won't keep pets at all, considering it a form of enslavement.

In order to save the animals involved and to bring their plight to the attention of the public may advocate civil disobedience, confrontation, harassment and the illegal removal of experimental, pound or other animals considered to be suffering or likely to be destroyed.

The ends justify the means. Our cause of ending animal suffering is so just that we have the right to break the law.

New Developments

Until fairly recently, the North American trapper had a limited choice of tools and methods available to him. Often in reaching his objective of capturing animals, the early trapper used methods which caused undue pain, stress and damage to the quarry. Also, in the past, there was little public pressure against trapping and no organized educational programs available to teach trappers about humane methods.

Over the past decade, scientists, in conjunction with numerous trappers, have applied their knowledge and practical expertise to the fields of trap research, development and testing. They are united in their common goal of finding humane traps and methods for all species, because they realize that wild animals deserve the same consideration as do domestic animals which are about to be killed for either humane or consumptive reasons. Much has already been accomplished towards this end. Recent changes in the design of the foot hold trap, along with newly developed setting techniques, have shown that improvements are possible.

Other devices, such as "quick kill traps" have also been developed. These traps have been proven effective and humane for various species. Many of these humane trapping improvements have been the direct result of efforts made by the trappers themselves in co-operation with government, humane groups and other agencies and individuals across Canada.

Research and the development and testing is continuing under the guidance of the new Fur Institute of Canada. Research facilities are located at the Alberta Environment Centre in Vegreville, Alberta. Trappers are encouraged to submit any ideas they may have toward the betterment of trapping devices and techniques to the Vegreville Centre. Some experimental traps are pictured on Page ___ of this manual.

Also, to further the concept of humane trapping and to assist trappers in the more efficient use of currently available equipment, Government agencies have provided the means to carry out trapper education programs. By attending these courses, many trappers are acquiring the additional knowledge and skills necessary to do their work in a more efficient and humane manner.

As a result of all this, the trapper today has been provided with more choices and a greater opportunity to deal with animals more efficiently and humanely. It only remains for trappers to avail themselves of the knowledge and put it into practice. There is no longer any excuse to continue with the old antiquated and inhumane devices and techniques of the past!

Experimental traps - presently being tested

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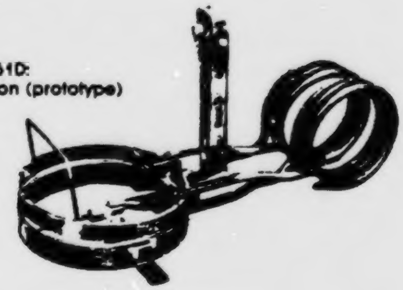
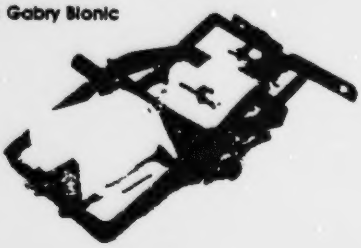
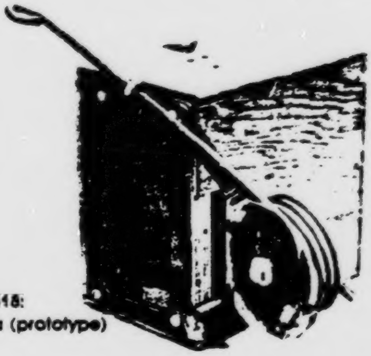
Hanson (prototype)



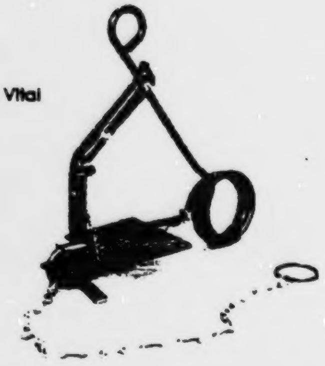
100710B: Gabry Bionic

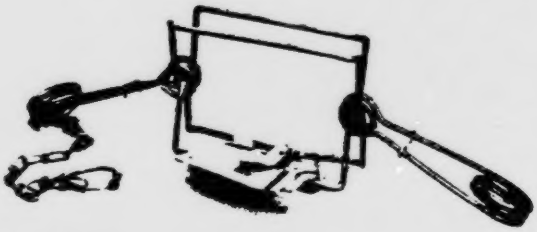




100331B:
Kania (prototype)

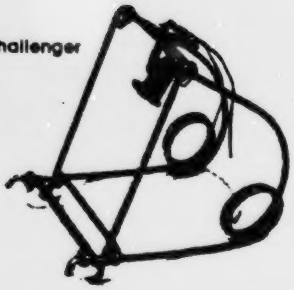
0303143A: Vital

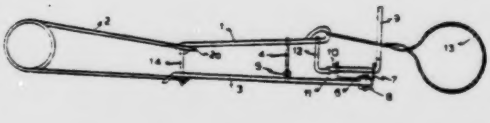




061258A&B:
Novak 180 (prototype)

100704B:
Gabry Challenger

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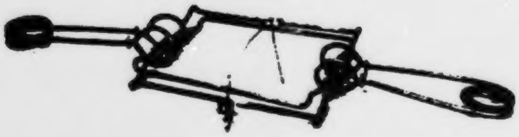
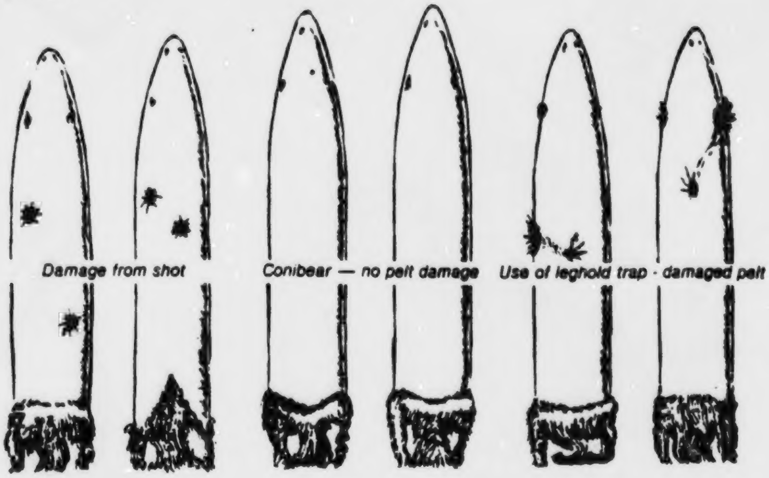
Power snare (proto type)



1410330B: Montgomery (prototype)

Greater Efficiency

As well as the intrinsic values, such as respect for wildlife and pride in a job well done, a trapper should be aware of the added benefits of the practice of humane trapping. More humane and effective trapping methods improve trapline efficiency and the financial return to the trapper by reducing the number of unwanted animal captures, virtually eliminating losses through "wring offs" or other escapes, minimizing pelt damage, saving time, etc.



The middle pair of pelts is worth twice as much as the first and last pair.

Prevention of Suffering

Finally and most importantly, every trapper should recognize that he bears a responsibility toward the animals he traps. These animals deserve humane treatment and wise management. Every effort should be made to prevent the unnecessary suffering of furbearing animals and the unnecessary killing of non-furbearing animals. The use of the humane devices and methods as outlined in this maual, is the best assurance the trapper presently has to meet this responsibility.

Summary of Reasons for Humane Trapping

1. Trappers must recognize their RESPONSIBILITY towards wildlife, to prevent unnecessary suffering and killing of these animals.
2. The EFFICIENCY of humane methods results in reduced escapes, pelt damage, time loss and increased trapper revenue.
3. The practice of humane trapping methods promotes good PUBLIC RELATIONS which are essential for the preservation of the industry.
4. The modern trapper has the OPPORTUNITY to choose from improved devices and to learn humane techniques through trapper education programs.

A Code for Responsible Trapping

CODE OF CONDUCT	REASONS FOR
1. Every trapper should strive to attain the highest degree of humaneness possible in his trapping operations.	To prevent unnecessary suffering of animals. It is more efficient. To promote public trust and understanding.
2. Every trapper should make sets designed to capture target furbearers only.	To negligently kill non-target animals is a waste of time, life and revenue which results in a poor public image. Therefore, steps should be taken to avoid capturing non-target animals.
3. Every trapper should strive to attain the highest degree of proficiency possible in handling the fur he/she catches.	A trapper who has taken the life of a furbearing animal owes that animal the respect of properly handling the pelt. Consistently well-handled pelts enhance the image of the trapper and help maintain a market for this product.
4. Only kill-type trap sets should be used to harvest the following furbearers: fisher marten badger mink raccoon skunk weasels wolverine muskrat (on land sets) otter	Efficient, humane killer type traps are available for these species and should be used.

CODE OF CONDUCT	REASONS FOR
5. Underwater sets should be used to harvest the following furbearers: *beaver *muskrat otter *For beaver and muskrat, drowning type shore sets are also acceptable.	Underwater sets ensure a humane death and lessen the possibility of predation.
6. Drowning-type shore sets should be equipped with a lock. Slide wires and weights must be submerged in a sufficient depth of water.	For shore sets, properly used slide wires, locks and weights make the use of drowning devices acceptable.
7. Foothold traps, when attached to a solid anchor and set on land should have a centre-mounted, swivelling, short chain (no longer than 12"). The chain should include a shock absorber.	This helps prevent the animal from injuring itself by entanglement or violent jerking. A spring device in the chain helps absorb the shock.
8. A padded-type trap should be used for those animals where no effective kill-type device is available.	The increased surface area and rubber reduce the impact of the blow.
9. Snares should be equipped with proper lock devices. (Squirrel snares do not require locks.)	A proper lock and cable combination will aid in a more humane death.
10. Inspect hold-type land sets daily, preferably in the early morning. Make only as many sets as you can effectively handle.	Most animals will be captured during the night or early morning hours. Checking traps early minimizes the duration of stress to the animal, reduces vandalism and promotes the image of a consciencious trapper. Too many sets result in extending checking time, possible damage and waste.
11. Anchor traps or snares securely enough to hold the largest potential catch.	If the trap or snare is not anchored securely, the animal may escape with the capture device attached and die slowly. (ie: Fisher attracted to a weasel can set.)

CODE OF CONDUCT	REASONS FOR
12. Know and practice proper releasing and killing methods.	Live caught animals deserve humane treatment.
13. Dispose of animal carcasses properly.	Animal carcasses which are improperly disposed of may foul water, be unsightly and odorous or cause the spread of disease and may also result in a poor public image.
14. Respect the rights and property of others.	Trappers should recognize the right of others to use and enjoy the outdoors. Good land owner relationships will be fostered.
15. Assist farmers and other landowners who are having problems with nuisance animals.	Nuisance animals cost individuals and the government many thousands of dollars each year. Wherever the trapper can assist in controling this problem will help to improve the trapper's relations with the land owner and his image with the public.
16. Encourage and support trapper education and public awareness programs.	Education is the best means by which trappers and the public can be kept informed about the trapping industry and bring about beneficial changes.
17. Promptly report the presence of diseased animals to proper wildlife authority.	This will help control and prevent possible spread of disease.
18. Protect and conserve wildlife and its habitat.	Be aware and take action against over harvest of wildlife or environmental abuse. Priority should be given to trapping in areas where furbearing animals are overabundant.
19. Identify and record trap set locations and capture information.	This is to help protect against theft, ensure sets can be located and provide management information to the trapper.
20. Support and cooperate with government wildlife agencies.	Wildlife agencies help to manage the resource for commercial and recreational uses.
21. Support trapper and other wildlife conservation organizations.	Trapper organizations help protect trapper interests by providing a political voice and a means whereby trappers can deal with concerns in an organized manner. Wildlife organizations should be supported because they promote the better management, conservation and humane treatment of animals.

HUMANE TRAPPING TECHNIQUES

Regulations and Conduct

Every trapper is required by law to abide by the provincial trapping regulations. Some of the prohibitions within the regulations are intended to ensure humane trapping practices. But following the provincial regulations alone is not enough to ensure a humane operation.

As the preceeding "Code For Responsible Trapping" (p.) recommends, it is essential that every trapper adhere to a voluntary code of conduct in order for the trapping industry to achieve a satisfactory level of humaneness.

Selection of Capture Devices

Considering the Choices

An essential first step in humane trapping is for the trapper to select the most humane and efficient capture device available to harvest the target species. A "Capture Device Selection Chart (p.) lists the most recommended devices which are readily available on the market today. Some acceptable "alternatives", which may be used in the event that the most recommended device is impractical or unavailable in certain situations, are included in the chart.

Alternative devices, because of design, material or construction are not as likely to result in a humane capture as are those in the recommended category. For purposes of clarity, brand names have been used although no promotion of brand is intended.

Killing-type Devices

Because the object of trapping for fur is the acquisition of the pelt, the death of the animal is inevitable. Given this, the most humane device will be that which achieves a rapid death of the target furbearer. The shorter the time between capture and death of the animal, the less opportunity for pain and stress.

Research has shown that it takes a great deal of trap strength and energy to kill most furbearing animals quickly. Traps must be strong and stay strong. Although many traps look similar, they may be very different in strength and quality. Weight and temper of the steel used, along with minute changes in dimensions and geometry, can drastically affect the killing potential of a device. When high quality materials are used in the manufacture of these devices, their reliable life expectancy in increased.

Standards are now being drawn up for the manufacture of kill-type traps. Most of the experimental traps that are now being field tested have been mechanically tested for striking and clamping force and have satisfied the standards of the Canadian General Standards Board's publication, titled "Animal Traps, Humane, Mechanically Powered, Trigger Activated" (Publication can2-144. 1-M84.)

Holding-type Devices

It is recognized that for furbearers in the dog and cat families, in some areas, holding devices are required at the present time. A holding system is deemed acceptable if the set is inspected frequently; does not damage the animal's foot; does not cause unnecessary pain and the animal is released or dispatched humanely.

Improved foot-holding and cage-type devices may provide the best alternative for trapping animals where setting killing traps could present a hazard to domestic animals, for selective trapping, and in situations where the animal is to be taken alive for tagging or biological study.

Humane holding does not harm the animal or cause it's death. As a result, the trapper is better able to manage the trapping area as the option exists to release breeding stock, out-of-season animals and non-target species. No matter what kind of live-holding device is used, or how little damage is done to the animal's limbs, it must be remembered that the animal is under stress from being confined and/or having it's movements restricted. The trapped animal is often unable to obtain water, food or shelter. Therefore, holding devices should be checked daily, preferably early in the morning, so that the animal is held for the shortest time possible.

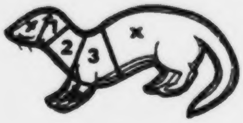
KNOWLEDGE

Learning Humaneness

The humane set methods, diagrams and charts in this manual give detailed recommendations for each capture device. Methods to be avoided are also discussed along with arguments against their use.

It should be realized that any capture device, no matter how well designed or constructed, will be only as effective and humane as the manner in which the trapper uses it. Training and experience will show the trapper the proper setting techniques necessary to bring about a humane capture.

Every trapper should be willing to learn - and to put into practice - newer humane methods as they become available. Participating in trapper education programs is the best way to keep up with these new developments.



Recognizing the signs of pain and stress.

Every animal captured should be carefully observed and inspected for signs of pain or stress which it may have undergone as a result of being captured. If any signs are evident, then steps should be taken to determine their cause with the intention of avoiding their recurrence.

It is important for a trapper to recognize the signs of an an animal suffering, in order to correct and improve his techniques and eliminate needless suffering. Some signs the trapper can look for which indicate the animal has suffered pain and stress are as follows:

a. With Holding Devices

- disturbed trap site
- swelling of the trapped limb
- rubbed fur
- cut or rubbed skin
- deep bruising or hemorrhage
- dislocated or broken bones (look for swelling, local heat, unnatural position of bones, reluctance or inability to use suspected part)
- broken teeth
- bleeding gums
- dirt in mouth
- broken claws
- amputated feet which indicate that the animal has been improperly caught previously

b. With Killing-type Traps or Snares

- disturbed trap or snare site
- swelling (if caught around the head or neck, look for fluid build-up around the face)
- rubbed fur
- undesirable strike or snare location on the animal, (if the strike is not in a vulnerable area such as Strike Zones 1, 2, 3 for killing traps or Strike Zones 1 or 2 for killing snares)
- broken teeth
- bleeding gums
- dirt in mouth
- broken claws

Selection of Trap Sets

The trap sets which a trapper chooses to use and the care with which he constructs and tends these sets is another important aspect of ensuring the humane capture of furbearers.

The trap sets shown in this manual have been carefully selected to meet the highest standards of humaneness. In addition to humane considerations, the trap sets have proven to be efficient, effective, easy to transport, easy to construct, economical and acceptable from the conservation standpoint.

It should be kept in mind that only a limited number of sets are included because there is not time nor space to cover all possible sets. The philosophy here is that the trapper is far better off knowing a few very good sets well, than being confused by a great many sets which may include a lot which are mediocre in their humaneness and efficiency. However, the trapper is encouraged to learn new sets and after this course, he should have sufficient knowledge to judge whether any given set is humane or not. If the set is not humane it should not be used.

SET LOCATION

The location of the trap set will have a strong bearing on its humaneness. The humane trapper will want to avoid the capture of non-target animals and ensure the humane capture of target furbearers. This can be accomplished most of the time, when the trapper takes care in choosing the set location, selecting the proper capture device and lure. For example, sets which may capture domestic animals should not be placed near human habitation. If a dirt hole set is made for trapping coyote, do not place it near badger diggings. Locating sets underwater for semi-aquatic furbearers will enhance the humaneness of the set, etc.

Set location is important for conservation and economic reasons as well. For example, the trapper can avoid locating sets that will take marten in areas where their population is low. Sets carefully placed in key locations will have a high capture rate and economic return for the trapper.

In order to assist the trapper to determine the best set locations in his area, a chart outlining possible set locations for the various furbearers is shown on Page _____. Suggested procedures for scouting set locations are provided as follows:

Reconnaissance (Scouting)

Before going into the field to make sets, it is well worth the time required to carefully examine your trapping area through the use of maps and/or aerial photographs. Even the experienced trapper, who knows the area quite well, may be surprised at the discoveries that can be made in this way. Many features that are difficult to understand at ground level in the bush, will show up clearly when you have a "bird's eye" view of a map or photo.

It is best to use a combination of large scale topographical, forest inventory maps and aerial photos. Key areas of interest can be pinpointed, and at a later date, more closely inspected by cruising them at ground level, by flying over them or by obtaining a larger scale aerial photo of the area.

Much valuable time can be saved during the short harvest season by planning your access routes and general set locations from a map. Strategically placed sets also yield more fur and thus increase revenues to the trapper.

When studying maps or aerial photos, look for features that funnel or concentrate the animals' travels such as the narrows in a lake, saddles between hills, eskers, portages, old bush roads, cut lines, edge areas, hedgerows, fence lines, etc.

Zeroing-In

a. Habitat

Learn the habitat requirements of the species you are going to trap and then examine the maps for areas which appear to meet these needs. (See the Trap Set Locations Chart, Page _____ for the basic habitat requirements of each species). For instance, areas where trembling aspen border small ponds, lakes or streams are good habitat for beaver. This kind of information can be readily obtained from a forest inventory map.

Depending upon the species you are interested in harvesting, good feed or habitat areas will often be indicated by such features as rapids, lakes, beaver ponds, marshes, muskeg islands, rivers, edge areas, burned over areas in various stages of regrowth, mature forest areas, etc. Beaver dams, lodges and ponds are often easily spotted on maps or aerial photos - look for constrictions in a creek with a wide bulge on the upstream side. The activity of beaver creates habitat which other animals (muskrat, mink, otter and weasels) benefit from. Large predators, such as fox, coyote and wolf also benefit as, in many cases, the animals mentioned above are part of their food source.

Areas of poor habitat, such as fresh burns, freshly logged areas, bog, etc. can also be outlined. Many hours of wasted time can often be saved by avoiding these areas as much as possible and instead concentrating your activities in the pockets of good habitat.

Areas of transition, where two or more habitat types meet, will provide conditions suitable to plant species from each of the habitat types. This results in an increased variety and abundance of wildlife. These "edge" areas are generally denoted by a change of vegetation type, consisting of a zone of vegetation which is a mixture of that found in the adjoining areas. This vegetation change may result from a change of contour, a fire, logging activity, water, soil conditions, etc.

Where the edge effect coincides with a contour change (eg: a ridge running along the edge of a muskeg), a dual benefit of improved travel and lookout routes occurs in conjunction with the other habitat advantages. Aerial photos, forest inventory and topographical maps can be used to outline where this "edge-effect occurs. Look for a change of vegetation and try to determine the cause of the change and how this could be used to advantage in your trapping operation.

3. Sign

Once you have pinpointed and decided on the general areas where you intend to make your sets, these areas should then be cruised on foot or with a snow machine. Slowly and carefully watch for the specific sign of the animals you wish to trap - signs such as tracks, droppings, urine posts, hair, trails, feeding, dens, lodges, runs, scent mounds, etc.

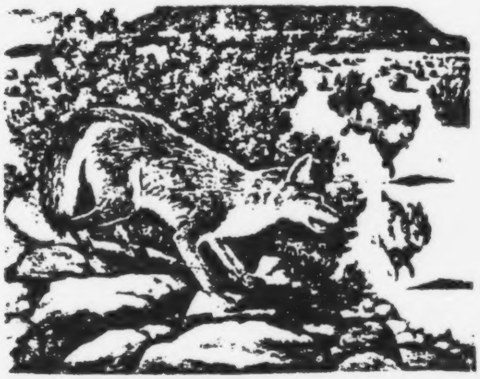
In some instances, watching for the signs of the prey species may give a lead (eg: abundant hare sign may indicate an area which should be more closely examined for lynx sign, plentiful mouse sign may indicate an adequate food source for many furbearers).

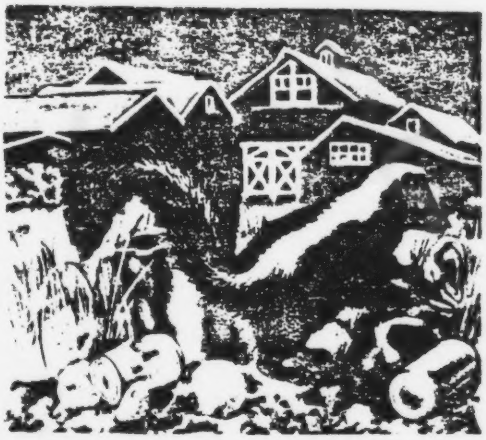
Areas around squirrel middens, beaver dams and lodges are frequented by many species of furbearers and are well worth checking for sign.

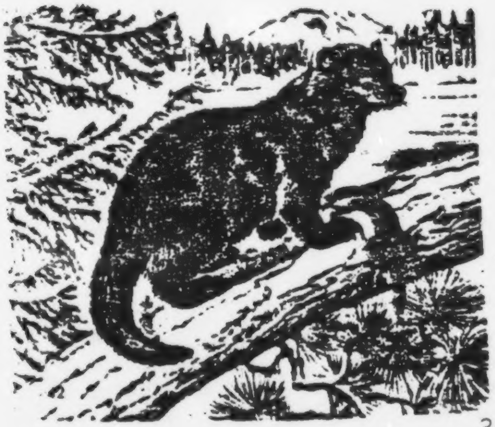
Excellent information regarding the current activity of wildlife can be gained by "reading" the snow sign in the two day period following a snowfall.

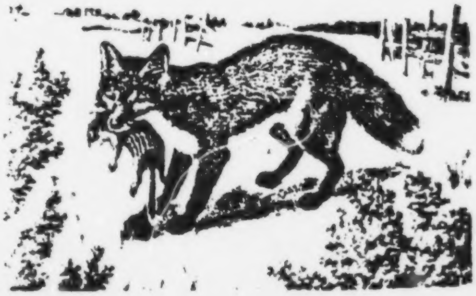
By assessing the freshness of the sign, it's abundance, and by examining various features of the landscape in the area, a trapper with some field training and experience can soon spot the best natural set location in the area and decide upon how many sets "if any", it may be appropriate to make.

The following pictures remind us of the typical and varied habitats in which furbearers may be found.





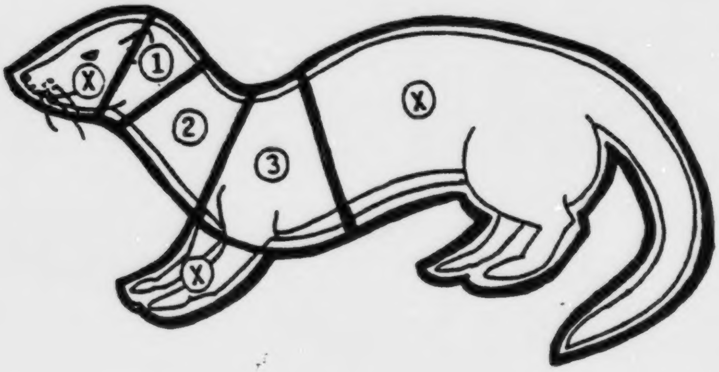




PROPER STRIKE LOCATION

The Zones

In order for killing traps to be humane and effective, it is important that the jaws strike the animal from top and bottom in a vital location with the maximum striking and clamping force. The following diagram indicates the most effective areas to be aimed for.

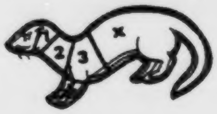


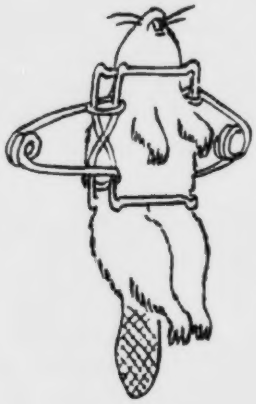
STRIKE ZONES

Strike Zone 1	When the strike occurs in this zone, the animal is generally rendered unconscious almost instantly and death is quick because of trauma to the brain.
Strike Zone 2	A strike in this zone will also result in rapid death due to constriction of blood to the brain, asphixiation and possible severence of the spinal column, but the animal is less likely to be rendered unconscious instantly.
Strike Zone 3	A strike in this zone will collapse the lungs and/or heart resulting in rapid death. However, the animal is not as likely to be rendered unconscious instantly and IRREVERSIBLY.
Strike Zone X	A strike in this zone will result in a much more prolonged death to a conscious animal and will be an inhumane capture.

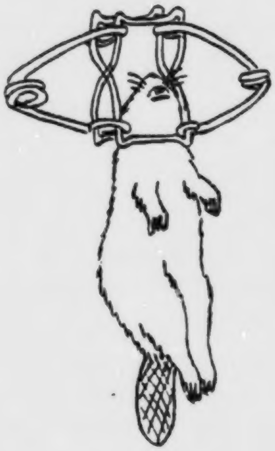
Therefore, from a humane standpoint, it is desirable for the animal to be struck in the region from just back of the ears to the upper rib cage. The emphasis and goal of every humane trapper should be towards Strike Zone 1.

The Strike Zones are listed in order of preference and assume that all the energy of the trap will reach the correct location (i.e. a single strike). If, through careless sets, the animal manages to get too far into the trap then either a poor strike location will follow or the energy of the trap will be shared between two locations on the animal (i.e. a double strike). The following diagram displays two strike situations.





Trapped beaver showing improper double strike



Trapped beaver showing proper single strike

In the case of the single strike, it can easily be seen that 100% of available trap energy has gone wholly into Strike Zone 1. In addition to maximum striking force reaching the animal, the rings on the ends of the springs move fully out to the keeper corners and thereby give maximum clamping force.

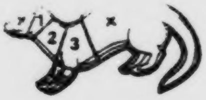
But in the case of the double strike, it can be seen that the energy is unfortunately shared between the vulnerable Strike Zone 1 and the non-vital abdominal region. Further problems from this strike occur since, on many furbearers, the abdominal region is thicker than the neck region. Being thicker, the abdomen receives the strike from the killing bars first and absorbs much of the striking force before the second set of killing bars even makes contact with the head/neck region.

Another problem with the double strike is that the abdomen does not allow the bars to come together for maximum clamping force. As the illustration shows, the rings at the ends of the springs are not extended into the keeper corners as they are designed to be.

Factors Affecting the Strike Location

a. The Trap

The size of the trap must be tailored to the target animal. Refer to the Capture Device Selection Chart, starting on Page ____, which will you assist in matching trap to animal. The humane Trapping Do's and Don't's chart, starting on Page ____, informs the trapper of precautions he should keep in mind when using kill-type traps.



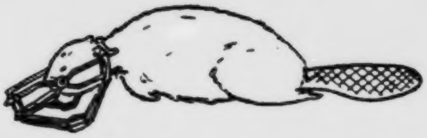
For example, if the trap size is too small for the animal captured, the killing bars will strike too far forward (ie: ahead of Zone 1); if, on the other hand, the trap is too large, the killing bars may strike beyond Zone 3, resulting in an inhumane capture.

Research performed by the F.P.C.H.T. has confirmed that the lowest "kill threshold" is achieved by a crosswise dorso-ventral (top and bottom) strike in Zone 1 on the animal. Their work also indicated that animals, when struck in the same zone laterally (from the sides), often required close to twice the force to be killed.

NOTE: An exception to this is the "can set" which uses a foothold trap as the killing device. In this case, the target furbearers are small and the trap sufficiently powerful to effect a humane kill with a lateral strike.

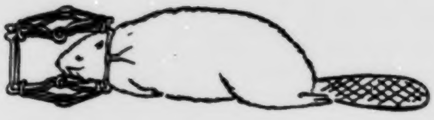
It was further shown that the trap should be positioned crosswise (at right angles) to the animal's line of approach to achieve the best strike.

These facts clearly show that trap position is a critical factor in optaining the most humane strike location. The following drawing illustrates the two types of strike.



✓

Crosswise Dorso-ventral strike



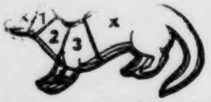
X

Lateral strike

Care should also be taken with land sets to avoid placing the trap directly against a solid vertical object. This can result in a strike location too far towards the rear of the animal (ie: beyond Zone 3) because the trap may rebound off the backing.

b. The Trigger

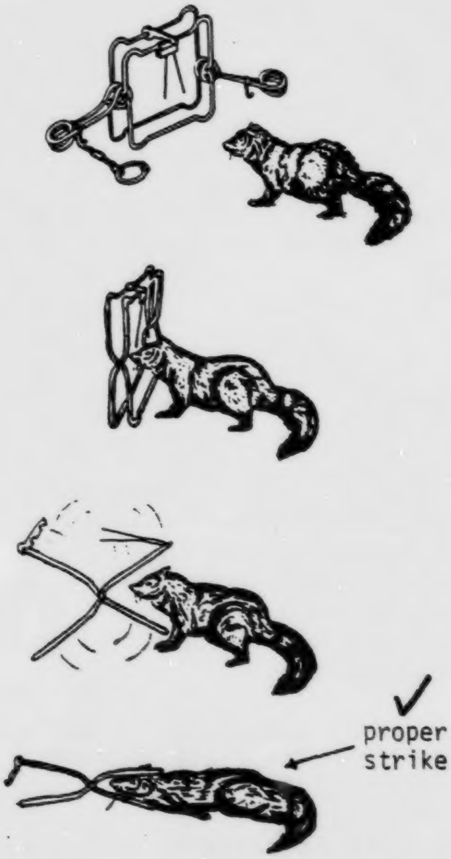
The trigger form or shape, position, length, sensitivity, tilt, dog adjustment and baiting are all critical in kill-type traps to ensure a proper strike location. At the same time, the trigger must be set in a way that will not discourage the animal's entry into the trap, to ensuer a high capture rate.

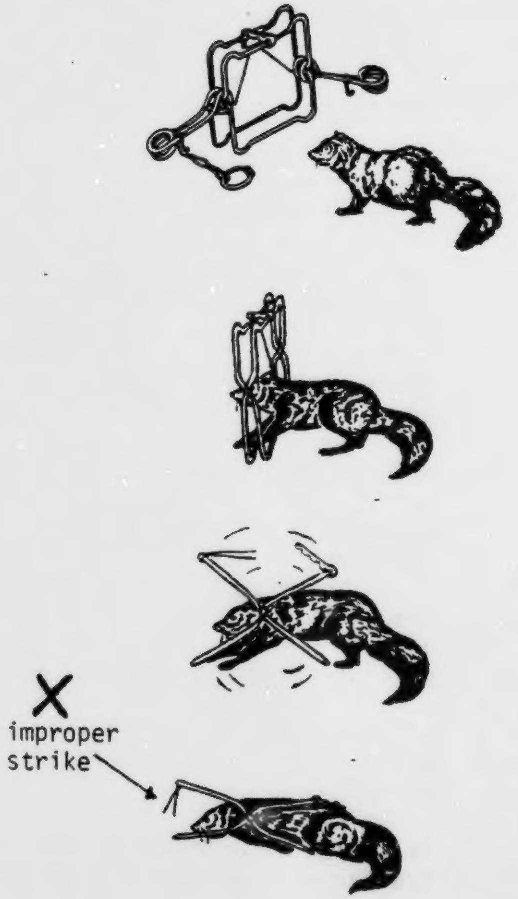


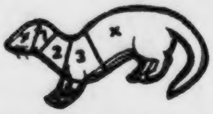
There are a variety of triggers available and they can be purchased separately for repair or replacement purposes. Triggers may be adjusted and/or modified to improve their operation. For instance, attaching a fine wire between widely spread trigger prongs, will create the impression of a large opening and encourage the animal to attempt to pass between the prongs, rather than around them. It will contact the fine wire and trigger the trap. Refer to the illustrations on Page in the equipment section for details of trigger structure and modifications.

The trigger "form or shape" will determine what part of the animal will touch the trigger and spring the trap. This will affect the ultimate strike location. For example, in a trap set for a beaver where the trigger prongs are close together, the animal's nose will contact the trigger and result in a strike in Zone 1. Whereas, if the triggers are spread wide, the animal's neck or shoulder will contact the trigger and will result in a stike much further rear-ward. The trap may be oriented so that the trigger is "positioned" on the top, bottom or sides of the trap or facing toward or away from the approach. The trigger "position" will affect strike location. For instance, when the trigger is placed on the killing bar farthest from the approach, the animal will be deeper into the trap before encountering the trigger. This will result in a strike more rear-ward than if the trigger was "positioned" on the approach side of the trap.

The following series of drawings illustrate these principles:







The trigger "form and position" may also affect the willingness of the animal to enter the trap. For example, mink will readily enter a trap when the trigger is "formed" (widely spread or bent to the side) so as to create the impression of a clear passage.

It is often best to "position" the trigger on the bottom of the trap because most animals don't mind something touching their belly (as they are often climbing over sticks), but are wary of things touching their back. Furthermore, the trap dog will "not" strike the animal's back, possibly damaging the fur. Refer to the illustrations on Page ___ for various recommended trigger forms and positions.

The "length" of the trigger prongs is another important factor. When the trigger prongs are too short, the animal will generally be able to go farther into the trap before firing it, causing a more rear-ward strike than when the trigger prongs are long.

Long trigger prongs will also have the effect of causing the trigger to trip more easily because of the greater leverage. The trigger dog can be made to release more easily by reducing the depth of the dog notch, causing it to catch more lightly onto the killing bar. These things increase the "sensitivity" of the trigger mechanism causing it to trip more easily and quickly, resulting in a more forward strike location.

In addition, the "dog" has either two or three notches which allow for "adjustments" to be made. When the killing bar is placed in the outermost notch, the killing bars are thereby in a more advanced closing position and will have less distance to travel before striking the animal when the trap is tripped. This will cause a more forward strike.

For sets which allow the animal to approach from either the front or back of the trap, the killing bar should be placed in the innermost notch of the dog. The trigger should also be tilted to the center line of the trap. This is done so that, regardless of which direction the animal comes from, it will contact the trigger in the same position, so that a predictable strike is obtained in either instance.

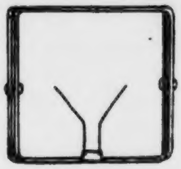
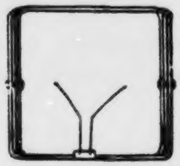
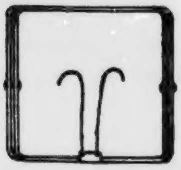
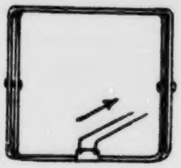
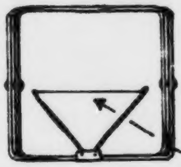
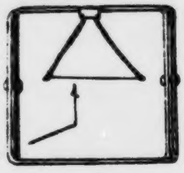
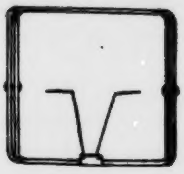
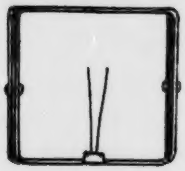
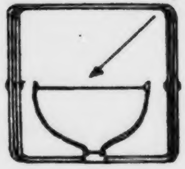
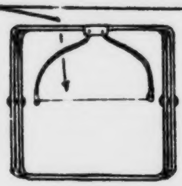
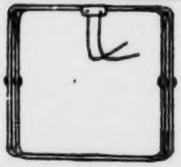
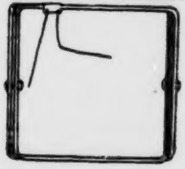
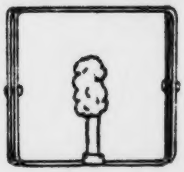
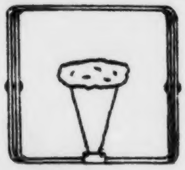
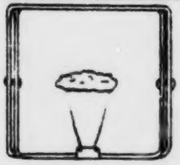
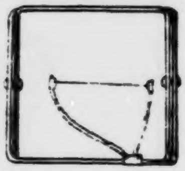
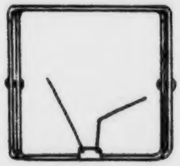
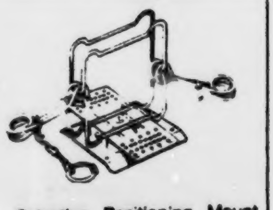
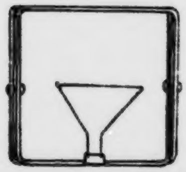
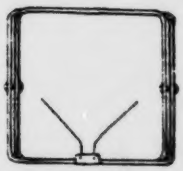
The "tilt" of the trigger deserves further consideration. In the event the trap is in a standing position with the trigger on the approach side and tilted backward from the vertical position, the animal will be deeper into the trap when it fires, so that it is struck further back than if the trigger had been tilted more foreward.

It should also be kept in mind that a baited trigger will have a different effect than an unbaited trigger. The animal's forward motion will be essentially stopped at a baited trigger, resulting in a predictable strike location, whereas, with an unbaited trigger, the animal will be moving through the trap. This will require a more careful trigger adjustment to obtain the same results.

On land sets, a scented lure (eg: hay ball) can be used on the trigger, but meat baits should not be used because of the danger of capturing birds.

By using these methods, and with experience, it is probable that the trapper will achieve a high percentage of humane captures.

TRIGGER FORMS AND POSITIONS (KILLING-TYPE TRAPS)

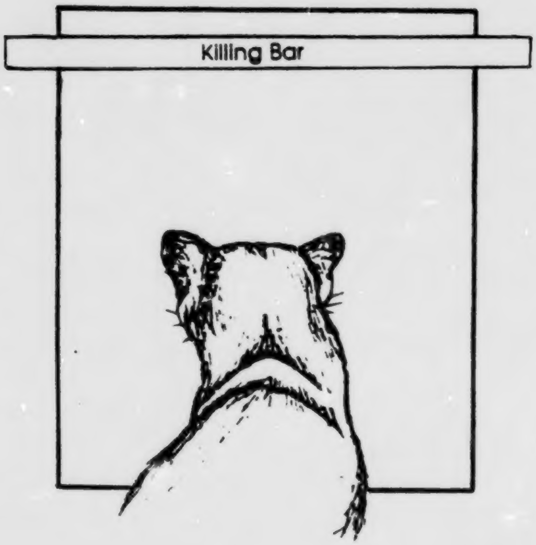
	A	B	C	D
1	 160-220 175-200 Fisher	 160-220 175-200 Fisher	 120-160-175 Mink, Marten	 280-330 250-300 Wolverine
2	 120-160-175 Marten, Mink Fine Wire or Monofiliment line	 120-160-175 Marten, Mink	 280-330 250-300 Beaver, Otter	 280-330 250-300 Beaver,Otter
3	 160-220 175-200 Fisher	 160-220 175-200 Fisher	 120 Marten, Mink	 280-330 250-300 Lynx, Bobcat
4	 280-330 250-300 Lynx, Bobcat (scented hayball or rabbit foot.)	 220-280-330 200-250-300 Underwater Otter (Baited Trigger)	 160-220 150-175-200 Muskrat (Underwater) (Baited Trigger)	 100-110-120 Squirrel
5	 Marten, Mink 120-160-175	 Selective Positioning Mount (SPM) converts Conibear traps to pan operation. Can be used with all Conibear traps!	 220-280 200-250 Raccoon, Skunk	 220-280 200-250 Raccoon, Skunk

c. The Approach

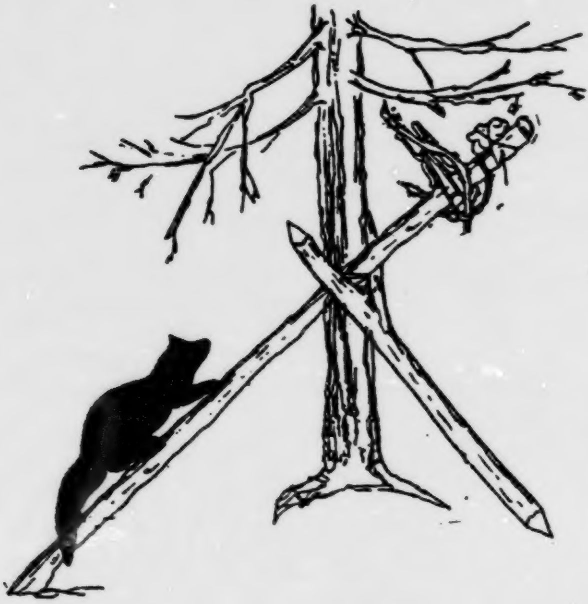
In order to obtain a consistent and predictable strike location, it is essential for the trapper to take measures to guide the animal into the trap from the desired direction and at the correct angle.

The trapper can accomplish this by taking advantage of the animal's natural habits, such as using established trails, runs, holes, climbing, diving, etc. In some cases, little or nothing may need to be or should be done other than carefully placing the capture device, for example, positioning a kill trap in a beaver run. A "pole set" for fisher requires more preparation to simulate a "climbing for food" situation. A box or can set is constructed by the trapper to artifically create a hole for use on those animals which hunt for food in this manner.

"Controlling approach" has the added advantage of increasing the trapper's revenue due to higher capture success, fewer losses and less damage. The sets shown in this manual, starting on Page ___, utilize this principle over and over again. The following drawings illustrate the concept of "controlled approach".



The animal should approach the trap or snare head on.



Running pole set illustrating the principle of a controlled approach.

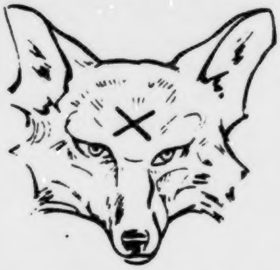
DISPATCH AND RELEASE OF LIVE-CAUGHT ANIMALS

Dispatch

Live-caught animals which the trapper wishes to keep should be killed in a quick and humane manner.

Recommended methods are:

a. Shooting the animal in the head with a small calibre firearm (.22 calibre). The shot should be placed in the center of an imaginery "X" between the eyes and ears, as shown below:



b. A quick, forceful blow crosswise at the base of the skull (behind the ears.) Use a solid green stick of small diameter (1" - 1 1/2"). A larger diameter stick will only serve to disperse the force of the blow to a greater degree. If the animal is not held securely, it is best to to shoot it.

c. Live animals taken in cage type traps can be dispatched by immersing the trap in water until the animal is drowned or asphixiated. (For skunks, slowly approach the trap and carefully cover it with a blanket or tarp before moving it.)

   Another method is to position a kill-type trap of the approiate size in front of the trap doorway. Then open the door and leave the immediate area, to allow the animal to enter the trap when trying to escape. Alternatly, the animal may be herded into the trap.

   Make sure that the animal is dead by touching the eye or mouth with some object other than the hand and watch for any reaction. If there is no reaction or signs of breathing, the animal may be assumed dead.

Release

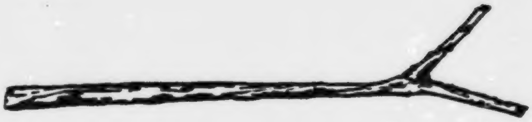
A trapper should keep in mind the possibility and/or desirability of releasing uninjured, live-caught animals. For example, in situations where animals are:

- unprime or out-of-season
- valuable breeding stock
- non-furbearers

The trapper should carefully assess the risk factors involved in releasing a given animal and take every precaution to ensure his safety and the animal's welfare as well.

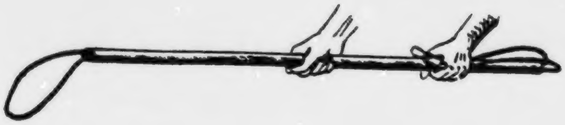
Methods of releasing animals include:

a. Using a forked stick



- the stick selected should be green, of sufficient strength, diameter and length to do the job
- the forked end is positioned around the animal's neck and it is forced firmly and steadily to the ground - away from the holding device
- pressure should then be applied to the trap spring (with your foot) thus releasing the animal
- in the case of a snare, the wire could be cut or the lock released
- pressure on the stick should be maintained until the trapper is in a safe position
- in some cases, a stick may be used to put pressure on the trap spring to release the animal without the need of restraining it

b. Using a noose pole



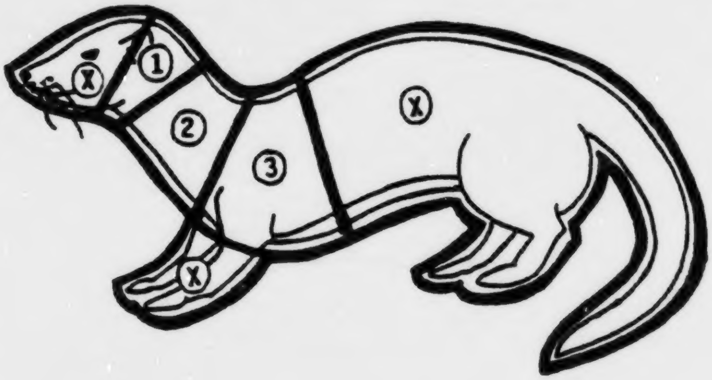
- a green stick of sufficient strength and length should be selected
- the noose is slipped over the animal's jaws or neck and tightened by winding the pole or pulling the cord sufficiently to restrain the animal without injuring it - the capture device is then removed. When the trapper is in position, the noose is released.

c. Using a tarp, coat or blanket

- this method is especially useful for smaller animals, the material should be sufficiently large and sturdy to cover the animal and prevent it biting through
- the animal is simply covered and held down or wrapped in the material to immobilize it
- the capture device is removed and the cover taken away as soon as the trapper is ready

SUMMARY OF HUMANE TRAPPING METHODS

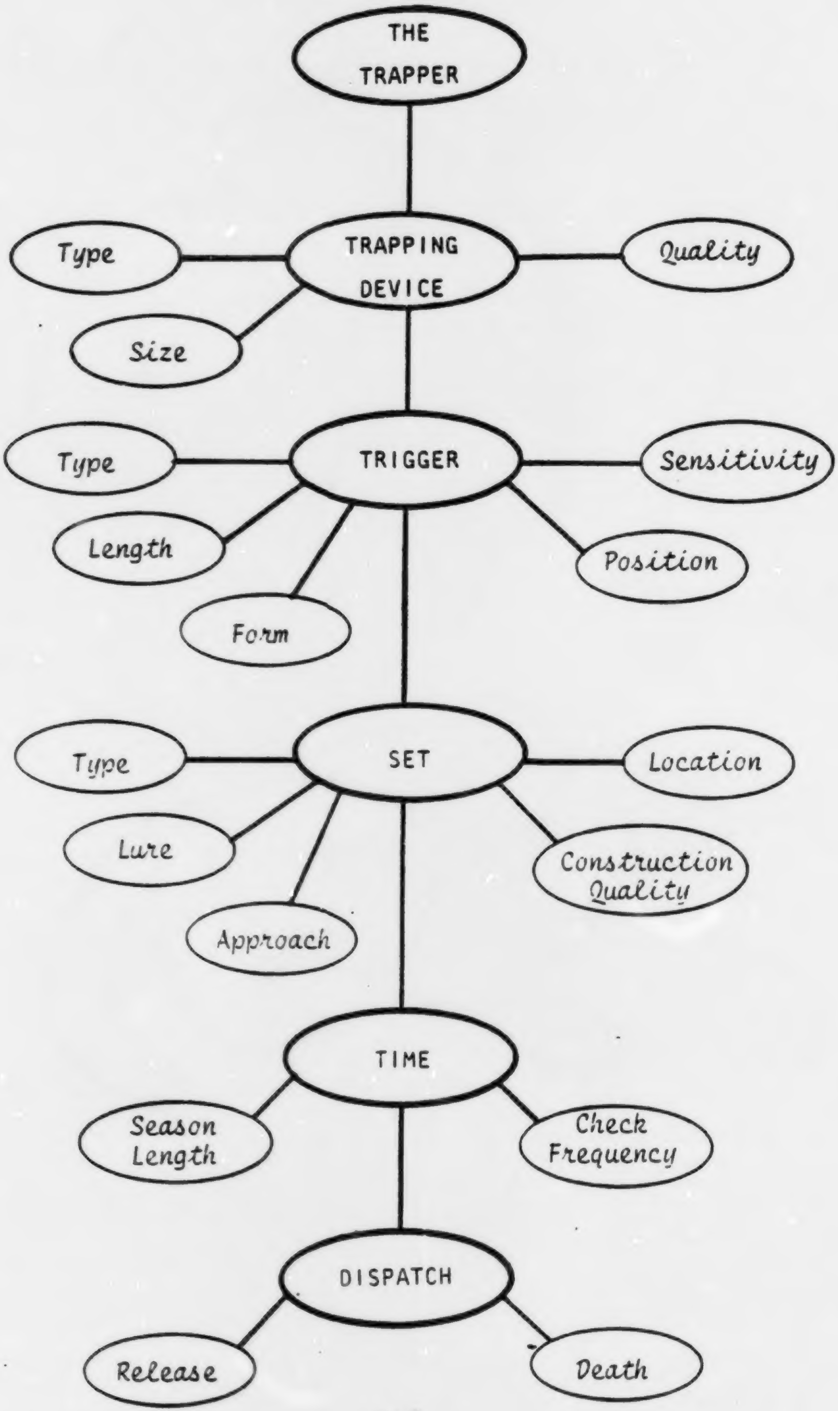
1. Abide by the provincial trapping REGULATIONS.
2. Adhere to the voluntary CODE OF CONDUCT for responsible trapping.
3. Select the most humane and efficient capture DEVICES available for harvesting target furbearers.
4. Learn and practice humane METHODS.
5. Choose the most humane trap SETS and carefully construct and tend them.
6. Choose set LOCATIONS with care and attention to their humaneness.
7. Learn and employ the most humane methods to DISPATCH OR RELEASE live-caught animals.



SUMMARY OF TRAPPER CONTROLS

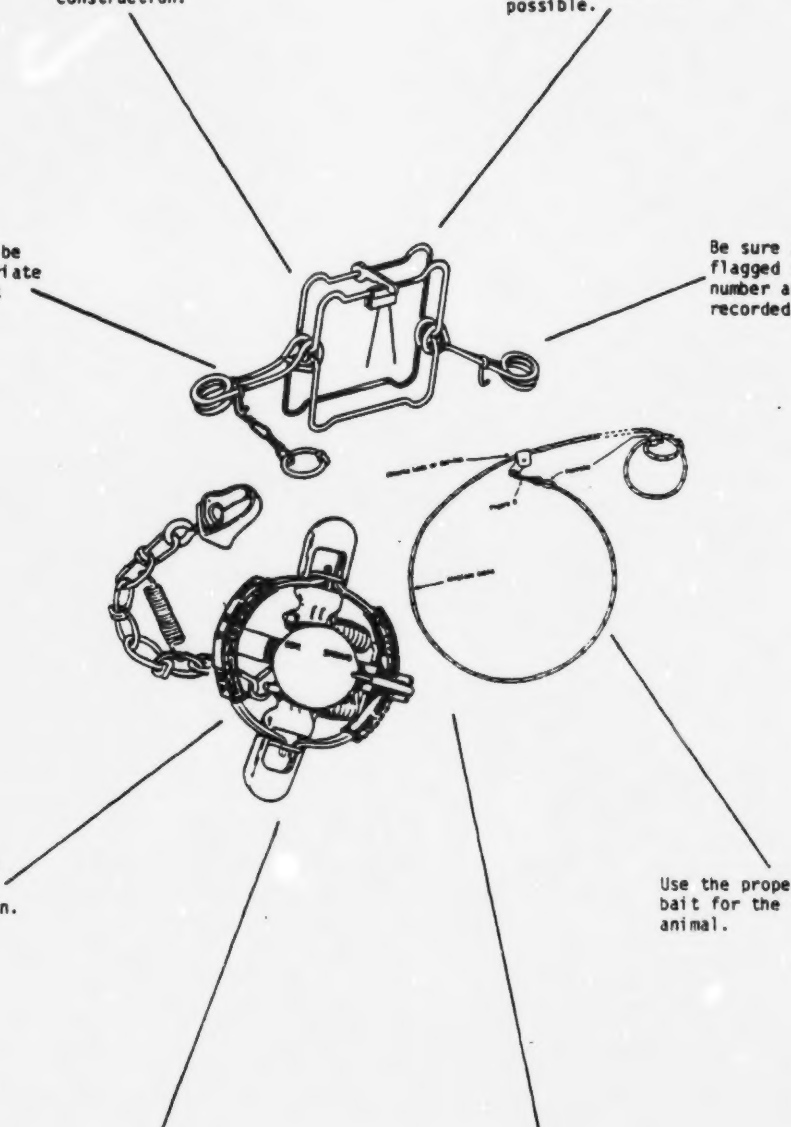
The following diagram illustrates the many factors involved in the capture of furbearers, which are under the direct control of the trapper.

If these are given careful consideration and the necessary effort is made to learn the best techniques to be used, then a humane trapping system will be achieved.


THE TRAPPER
TRAPPING DEVICE
Type
Size
Quality
TRIGGER
Type
Length
Form
Sensitivity
Position
SET
Type
Lure
Approach
Location
Construction Quality
TIME
Season Length
Check Frequency
DISPATCH
Release
Death

HUMANE TRAPPING - DO's

GENERAL



Purchase and use devices made of the finest materials, best design and construction.

Use sets which control the animal's approach into the capture device, as much as possible.

Select the proper type of device to be used in an appropriate set for the target species.

Be sure all sets are flagged and their number and locations recorded on a map.

Maintain capture devices in good working condition.

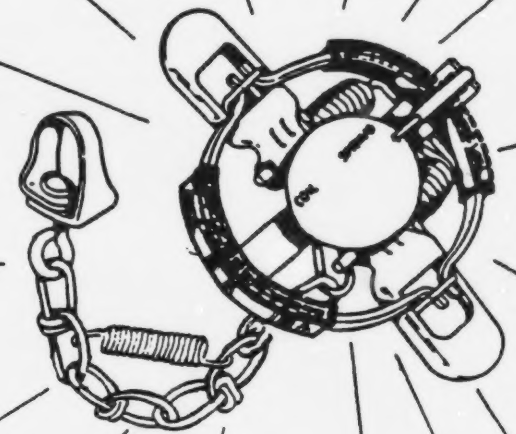
Use the proper lure or bait for the target animal.

Make sets in the most likely and appropriate locations to capture the animal intended.

Use materials in the construction of the set which avoid attracting non-target animals.

HUMANE TRAPPING - DO's

FOOT HOLDING TRAPS



Use a trap with padded jaws when it is necessary to use a foothold trap as a holding device on land.

Use the proper size trap for the target species.

Use foothold drowning sets for beaver and muskrat only.

Use an adequate anchor immersed in a sufficient depth of water.

Use standard steel jawed foothold traps in kill sets only.

Use standard steel jawed foothold traps as killing devices when making can type sets for weasels or squirrels.

Check holding sets daily (preferably early in the morning).

Use a trap chain no longer than 12" and equipped with a shock absorber when the trap is solidly staked.

Use a trap with a center mounted chain.

Use an unkinked slide wire or cable of sufficient size and strength and use a proper one-way lock on slide wire sets.

Allow sufficient space between traps, in sets where more than one trap is used.

Adequately secure the trap to a strong stake or to a drag of sufficient weight and strength to hold the largest potential catch.

Use a trap with padded jaws, where it is necessary to set a foothold trap as a holding device on land. Limit it's use to harvesting furbearers of the cat and dog families.

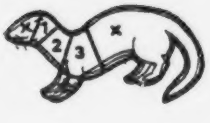
Use a trap with a swivel at each end of the chain.

Set foothold traps with jaws across the animal's expected line of approach.

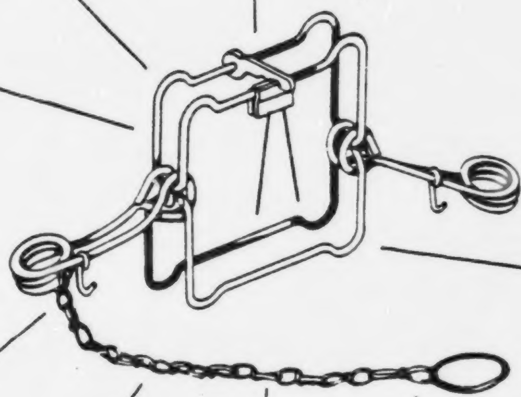
Adjust the trap pan tension to fit the weight of the target species.

Tailor the trap pan size to the foot size of the target species.

HUMANE TRAPPING - DO's



KILL-TYPE TRAPS



Take into account the approach situation and the trap size and then adjust the trigger and dog to fit the target species.

Use the proper size of trap for the target species.

Use only kill-type trap sets for the following furbearers: fisher, marten, mink, raccoon, badger, wolverine, otter, skunk and weasels.

Use kill-type traps in kill sets only.

Disengage and position all safety catches so they will not interfere with the operation of the trap, after the set is completed.

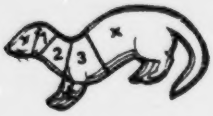
Use only a scented lure on the trigger of traps set on land.

Set the trap so that it is free to close while maintaining it's original location.

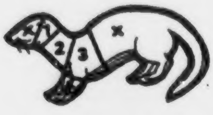
Use underwater sets for beaver, muskrat and otter.

Adequately secure the trap to an object which is sufficient to hold the largest potential catch.

HUMANE TRAPPING - DO's



KILLING SNARES



Use snare cable or wire of the proper size (thickness) for the target species.

Set snares more than 24" above the ground when making squirrel snare sets.

Use only NEW good quality snare wire, cable Figure 8 and ferrules.

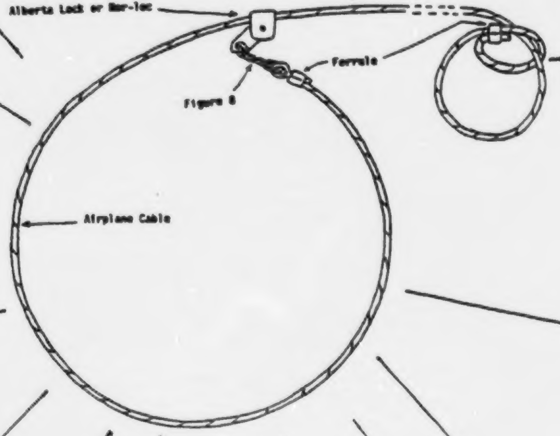
Check and adjust snare sets frequently (especially after a heavy snowfall or freezing rain).

Use snare wire or cable that is flexible.

Place the running pole at the proper angle when making squirrel snare sets.

Use a well-designed snare lock matched to the cable size.

Use stainless steel wire for squirrel snares (use Williams 16 pound test steel fishing line).



Use a good quality, well-designed ferrule, matched to the cable size and crimp them well (squirrel snares excepted).

Be sure the bottom of the snare loop is the proper height off the surface for the target species.

Use the correct material and construction when making a Figure 8.

Use a simple knot for making the eye for the loop on a squirrel snare.

Secure the snare to a solid anchor of sufficient strength to hold the largest potential catch.

Place snare sets on narrow trails in thicker brush where large game animals do not normally travel.

Correctly assemble all the necessary components of a killing snare in the proper order.

Place the eye of the snare along the top half of the loop, when setting squirrel snares.

HUMANE TRAPPING - DO's and DON'T's CHART

GENERAL

Humane Practice	Reasons for	Inhumane Practice	Reason against
Purchase and use devices made of the finest materials, best design and construction.	This will help to ensure a humane capture as the device will function properly and consistently.	Don't use home made devices (except for properly made snares) or alter commercially manufactured devices in any manner, unless you are sure the alteration improves the humaneness of the device.	It is very difficult to manufacture devices which will have a consistent temper and quality of steel or to successfully test them. Some alterations may make a device inhumane.
Select the proper type of device to be used in an appropriate set for the target species.	A careful selection of these items is the first step towards ensuring a humane capture. NOTE: Refer to the capture device selection chart and the sets illustrated in this manual.	Don't mismatch the device or the set to the target animal.	This will greatly reduce the probability of a humane capture.
Maintain capture devices in good working condition.	Properly maintained capture devices will function more efficiently and help to ensure a humane capture.	Don't use damaged or badly corroded devices.	Devices weakened by corrosion or damage may not kill or hold an animal properly, resulting in possible maiming, escape or prolonged death.
Make sets in the most likely and appropriate locations to capture the animal intended.	Using your knowledge of the animal's habitat, habits, food source, etc., prepare a set specifically for that animal.	Don't set capture devices at improper locations.	This may result in the capture of unwanted animals. Inflicting pain or death on these animals, when it can be prevented, is inhumane.

HUMANE TRAPPING - DO's and DON'T's CHART

GENERAL

Humane Practice	Reasons for	Inhumane Practice	Reason against
Use the proper lure or bait for the target animal.	This helps to avoid attracting non-target species and reduces the number of unwanted captures.	Don't use improper lure (i.e. garbage, burnt meat, diseased carcasses).	This may attract non-target animals and/or cause the spreading of disease.
Use materials in the construction of the set which avoid attracting non-target animals.	This helps to avoid the capture of non-target animals.	Don't use materials in the construction of the set which attract non-target animals.	The capture of unwanted animals results in unnecessary killing and is a waste of time and effort.
Use sets which control the animal's approach into the capture device, as much as possible.	This will help to ensure that the animal is guided into the capture device from the best direction and correct angle so as to result in a humane capture.	Don't make sets in which the animal's approach is obstructed in some way or which do not control it's approach into the capture device.	This will allow the animal to approach the capture device from the wrong direction and/or an incorrect angle which may result in an inhumane capture.
Be sure all sets are flagged and their number and locations recorded on a map.	This ensures that the trapper knows how many sets he has made and that they can all be found. This is essential in order for sets to be checked and adjusted regularly. When sets are properly marked, they can be found by a partner if the trapper himself is unable to attend them for some reason.	Do not make sets without flagging them or recording their number and location on a map.	Unmarked sets may be difficult to find, especially after a snowfall; also a trapper may forget exactly how many were set out. It is also very difficult for a second person to check them if the trapper himself can't do it for some reason. Untended sets may result in inhumane captures. Unrecorded sets may be overlooked at the end of the season. This can result in serious over-harvesting and waste.

HUMANE TRAPPING - DO's and DON'T's CHART

FOOT HOLDING TRAPS - LAND SETS

Humane Practice	Reasons for	Inhumane Practice	Reason against
Use a trap with padded jaws when it is necessary to use a foothold trap as a holding device on land.	The padded jaw cushions the blow to the foot. Surface area is increased so the force of the strike is dispersed. The padded jaw reduces the chance of cutting the skin and reduces circulation loss.	Don't use standard steel jawed foothold traps as holding devices on land. Foothold traps with teeth or other unapproved attachments or modifications must NOT be used.	These devices cause unnecessary suffering to the animal and better devices are available.
Use the proper size trap for the target species.	The animal will be caught behind the foot pads, reducing the chance of escape. There will be less likelihood of causing unnecessary injury.	Don't use over-sized or under-sized traps for the target species.	When the trap is too large for the animal, the strike location will be higher on the leg. The additional power of the trap increases the likelihood of damage to the trapped animal and it's pain and suffering is increased. When the trap is too small, the animal may only be caught by the toe, increasing the chance of escape with a damaged foot.
Use standard steel jawed foothold traps in kill sets only.	New, improved foothold traps are available for use as holding devices.	Don't use foothold traps in sets which suspend the animal in the air.	This will result in the animal hanging by its trapped foot, causing unnecessary pain and suffering.

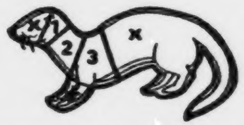
HUMANE TRAPPING - DO's and DON'T's CHART

FOOT HOLDING TRAPS - LAND SETS

Humane Practice	Reasons for	Inhumane Practice	Reason against
Use standard steel jawed foothold traps as killing devices when making can type sets for weasels or squirrels.	This is a humane means of harvesting these species.	Don't allow more than 1/4" of space between the inside of the container and the top of the closed trap jaws, when making can type sets which use a foothold trap as a killing device.	When too much space is allowed the animal's body will not be kept between the trap jaws where it would be humanely killed. Instead, it may be only injured or held, prolonging suffering.
Check holding sets daily (preferably early in the morning).	When these sets are checked frequently, it will allow less time for a trapped animal to suffer pain or stress. (Most animals are caught at night or early in the morning.)	Don't leave hold type trap sets unchecked for more than 24 hours.	When these sets are not checked frequently, it will allow more time for the animal to suffer pain and stress. The law states that any holding device set on land must be checked within 72 hours.
Use a trap chain no longer than 12" and equipped with a shock absorber when the trap is solidly staked.	This will help to prevent injury or damage to the trapped animal.	Don't use a long chain, or one without a shock absorber on a solidly staked trap.	This allows the trapped animal to lunge further with greater force, possibly causing broken bones, dislocations or escape with possible injury.
Use a trap with a center mounted chain.	The animal's foot will stay in the centre of the trap jaws. This will help avoid unnecessary injury.	Don't use a trap with a side- or end-mounted chain.	When the chain is end-mounted, the pulling action of the animal will cause the trapped foot to slide along the jaws and be pinched in the corner. The likelihood of cutting and restrictio of circulation are increased. When the chain is side-mounted, it will cause a bending or whipping action on the trapped foot when the animal pulls. This increases the probability of breaking it's bones.

HUMANE TRAPPING - DO's and DON'T's CHART

FOOT HOLDING TRAPS - LAND SETS

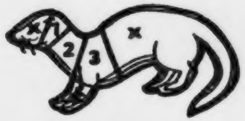


Humane Practice	Reasons for	Inhumane Practice	Reason against
Use a trap with a swivel at each end of the chain.	This allows the trap and foot to move freely together, preventing unnecessary injury.	Don't use a trap without swivels in the chain.	The chain may become twisted , kinked and rigid due to the animal's struggling. The foot may then rotate between the trap jaws, resulting in chafing and cutting.
Set foothold traps with jaws across the animal's expected line of approach.	This will cause the trap jaws to close across the front and back of the foot, behind the pads, where there is more natural padding. This will help to prevent injury or escape.	Don't set the jaws parallel to the animal's expected line of approach.	This increases the chance of the animal's foot being caught in the corner of the jaws and the trap jaws will strike the sides of the foot where less natural padding occurs, cuasing increased pain and suffering.
Adjust the trap pan tension to fit the weight of the target species.	This will help prevent the capture of smaller, non-target animals.	Don't set a trap that has the pan tension improperly adjusted for the target species.	This allows small, non-target animals to be captured when the trap pan tension is too light.
Tailor the trap pan size to the foot size of the target species.	A trap pan of the correct size will ensure that the animal's foot is well placed in the centre of the trap when it is triggered. This will help prevent injury.	Don't set a trap with a pan which has not been tailored to the foot size of the target species.	When the space between the trap jaws and the pan is too small, the animal's foot may contact the trap jwa and pan at the same time. This can result in a poor catch, escape or total miss. A poor catch may result in unnecessary injury.

HUMANE TRAPPING - DO's and DON'T's CHART

FOOT HOLDING TRAPS - LAND SETS

Humane Practice	Reasons for	Inhumane Practice	Reason against
Use a trap with padded jaws, where it is necessary to set a foothold trap as a holding device on land. Limit it's use to harvesting furbearers of the cat and dog families.	In many areas, there is no alternative capture device for these intelligent and long-legged species.	Don't use foothold traps as holding devices on land, for animals other than furbearers of the dog and cat families.	There are kill-type devices, suitable for all other furbearers in Alberta, which ensure a humane capture.
Adequately secure the trap to a strong stake or to a drag of sufficient weight and strength to hold the largest potential catch.	This ensures that the trapper will be able to quickly locate and dispatch the captured animal.	Don't inadequately fasten the trap to a poor stake or drag.	When the trapper is unable to locate the trapped animal within a resonable time, it will experience unnecessary pain and stress.
Allow sufficient space between traps, in sets where more than one trap is used.	This will avoid the unnecessary suffering caused by multiple trapping of the animal. One trap is sufficient to hold the animal.	Don't place traps too close together at sets, where more than trap is used.	This can cause unnecessary pain if the animal is caught in more than one trap.



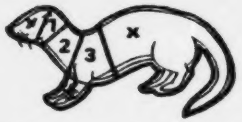
HUMANE TRAPPING - DO's and DON'T's CHART

FOOT HOLDING TRAPS - DROWNING SETS

Humane Practice	Reasons for	Inhumane Practice	Reason against
Use an unkinked slide wire or cable of sufficient size and strength and use a proper one-way lock on slide wire sets.	This will ensure that the trap is smoothly guided to the anchor. The animal will not be able to return to the surface and will drown or asphixiate quickly.	Don't use a slide wire set without a lock or with wire or cable which is weak, kinked, corroded, frayed or otherwise damaged.	A weak cable may break and allow the animal to escape with the trap still attached. A kinked cable may prevent the trapped animal from diving. A cable with no lock will allow the animal to repeatedly surface or regain land. In any of these situations, the animal will not die humanely.
Use an adequate anchor immersed in a sufficient depth of water.	This will ensure that the animal will die quickly as it cannot regain the surface to breathe.	Don't use an anchor or insufficient weight or place it where the water is too shallow.	The trapped animal will be able to repeatedly surface and breathe. Extending its time to death and thereby causing unnecessary suffering.
Use foothold drowning sets for beaver and muskrat only.	These species will dive when caught, resulting in drowning or asphixiation.	Don't use foothold drowning sets for mink or otter.	Mink don't often dive when captured. Both mink and otter can be caught more humanely in a kill-type trap.

HUMANE TRAPPING - DO's and DON'T's CHART

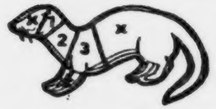
KILL-TYPE TRAPS



Humane Practice	Reasons for	Inhumane Practice	Reason against
Use the proper size of trap for the target species.	The animal is more likely to be hit in Strike Zone 1* for a humane kill. Refer to Page ___ for further information on strike zones and to the Capture Device Selection chart, Page ___.	Don't set a trap of inappropriate size for the target species.	When the trap is too small, the killing bar may hit the animal in front of Strike Zone 1. It may escape in an injured condition or be held inhumanely. When too large a trap is used, the killing bar may over-reach Strike Zone 3. This will result in an inhumane capture.
Take into account the approach situation and the trap size and then adjust the trigger and dog to fit the target species.	This fine tuning of the capture device will help ensure a hit in Strike Zone 1, quickly killing the target animal.	Don't carelessly adjust the trigger and dog.	This may cause a hit outside Strike Zones 1 to 3, resulting in an inhumane capture.
Set the trap so that it is free to close while maintaining it's original location.	This will allow the full killing power of the trap to be applied, in a predictable strick zone, to cause a humane capture.	Don't allow anything to obstruct or interfere with the operation of the trap, or to change its original position.	This will reduce the killing power or alter the strike location and result in an inhumane capture.
Use kill-type traps in kill sets only.	Kill-type traps are designed to catch and kill the animal quickly and humanely.	Don't use kill-type traps in a footholding set.	The trap is not designed for this purpose. The large frame, combined with the powerful striking and clamping force, will result in a hit high on the leg, with an impact which may break the bone, causing unnecessary suffering.
Use only a scented lure on the trigger of traps set on land.	This will attract only target furbearers.	Don't attach meat baits on the trigger of traps set on land.	This may attract and capture birds or other non-target animals.

HUMANE TRAPPING - DO's and DON'T's CHART

KILL-TYPE TRAPS



Humane Practice	Reasons for	Inhumane Practice	Reason against
Use underwater sets for beaver, muskrat and otter.	Kill-type traps, set properly underwater, ensure a humane death. If the set malfunctions, and the animal is not killed immediately, it will still drown quickly.	Don't use land sets for beaver and otter.	These species can be effectively taken underwater, which provides extra assurance for a humane capture.
Use only kill-type trap sets for the following furbearers: fisher, marten, mink, raccoon, badger, wolverine, otter, skunk and weasels.	Kill-type traps render the animal unconscious and ensure a quick death. Kill-type traps and/or sets are effective for these species, because of their short legs and their habit of searching in holes for food.	Don't use footholding devices or snares for fisher, marten, mink, badger, wolverine, otter, skunk, weasels and raccoon.	There are more efficient and humane capture devices readily available for these species.
Disengage and position all safety catches so they will not interfere with the operation of the trap, after the set is completed. *Refer to the illustration on Page ___ for the proper positioning of safety catches on a completed set.	The trap will operate as intended and result in a humane capture.	Don't leave any safety catches in place or improperly positioned after the set is completed.	When one safety catch is left in place and the trap is triggered, only the force of one spring will be employed and only half the killing power applied. If the safety catches are poorly positioned after being disengaged, they may interfere with the operation of the springs or killing bars, reducing the killing power and resulting in an inhumane capture.
Adequately secure the trap to an object which is sufficient to hold the largest potential catch.	This ensures that the trapper will be able to quickly locate the animal.	Don't inadequately attach the trap to an object which is insufficient to hold the largest potential catch.	When a larger animal than intended is trapped or the trap malfunctions, the animal may be able to escape with the trap attached.

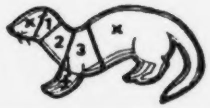
HUMANE TRAPPING - DO's and DON'T's CHART

KILLING SNARES

Humane Practice	Reasons for	Inhumane Practice	Reason against
Use snare cable or wire of the proper size (thickness) for the target species.	This will help ensure a humane capture. The snare will be sufficiently strong and will have maximum constricting potential. NOTE: Refer to the Snare Making Chart on Page ___ of this manual.	Don't use snare cable or wire of incorrect size (thickness) for the target species.	When the cable or wire is too thick, the constricting effect will be lessened. When the cable or wire is too thin, it may break, releasing a possibly injured animal.
Use snare wire or cable that is flexible.	This will ensure that the snare loop will close easily and tightly, resulting in a quick death.	Don't use snare cable or wire that is inflexible (stiff).	When the snare cable or wire is stiff, it is more difficult for the animal to close the loop quickly and tightly;. This may result in a more prolonged death.
Use only NEW good quality snare wire, cable Figure 8 and ferrules.	The quality NEW items are reliable and will help to ensure an efficient capture.	Don't reuse cable, wire, ferrules, Figure 8's or damaged locks.	It is difficult to tell how many times items have been used. These used metal parts become kinked, fatigued, corroded. The snare may not close quickly and tightly and it may break, allowing the animal to escape with the snare attached.
Use a well-designed snare lock matched to the cable size. See Snare Making Chart on Page ___.	A reliable snare lock will close quickly and maintain constant constricting pressure, resulting in a quick death.	Don't use snares without a lock or with an inferior lock.	When there is no locking device or if the lock is a poor one, the snare may not close tightly or may not maintain a steady constricting pressure, resulting in escape or an inhumane death.

HUMANE TRAPPING - DO's and DON'T's CHART

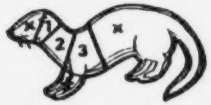
KILLING SNARES



Humane Practice	Reasons for	Inhumane Practice	Reason against
Use a good quality, well-designed ferrule, matched to the cable size and crimp them well (squirrel snares excepted).	This will help to ensure a humane capture as the snare will not come apart under stress. NOTE: The best quality ferrules are made of a magnesium alloy which is soft enough to crush down, yet hard enough to hold tight.	Do not use snares without proper ferrules, or crimp them inadequately (squirrel snares excepted).	The snare may come apart under stress, resulting in the escape of the animal, possibly injured, or with the snare attached.
Use the correct material and construction when making a Figure 8.	The snare is more easily adjusted and will close more readily, resulting in a catch close behind the ears (Zone 1). The strength of the Figure 8 will be adequate to hold the target furbearer.	Don't use a snare for any furbearer in the dog and cat families without a Figure 8, or one made of incorrect material and/or construction.	The snare may not close as quickly or tightly as it should, or it may break. This may result in a prolonged death or escape with possible injury.
Correctly assemble all the necessary components of a killing snare in the proper order.	This will produce a consistent, finished product which is required to ensure the humane death of a captured animal.	Don't incorrectly assemble a snare (don't mismatch or omit any snare components).	An improperly constructed snare can be a very inhumane device.
Secure the snare to a solid anchor of sufficient strength to hold the largest potential catch.	The animal's own momentum and pull against a solid anchor causes the snare to close tightly, killing the animal quickly.	Don't attach snares to drags or to a flexible or inadequate anchor.	When the anchor is not solid, the constricting power of the snare is reduced and will result in a less humane capture.

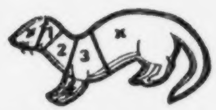
HUMANE TRAPPING - DO's and DON'T's CHART

KILLING SNARES



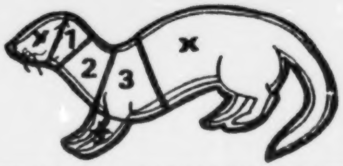
Humane Practice	Reasons for	Inhumane Practice	Reason against
Be sure the bottom of the snare loop is the proper height off the surface for the target species.	This will help to ensure that the snare closes around the neck, close behind the ears (Zone 1), resulting in a humane death.	Don't set the snare too low.	When it is too low, the animal may step through the loop, causing it to close behind the front legs and around the chest or the waist. The result of this will be an inhumane capture.
Place snare sets on narrow trails in thicker brush where large game animals do not normally travel.	This will help to avoid capturing game animals.	Don't set snares on game trails.	The likelihood of capturing game animals such as deer, moose, etc., is too great and it is not necessary or desirable to take this risk in the harvesting of furbearers.
Place the running pole at the proper angle when making squirrel snare sets.	The squirrel will die quickly as it will not be able to climb back on the pole.	Don't place the running pole at too steep an angle, when making squirrel snare sets.	The snared squirrel may be able to climb back on the pole, prolonging the time to death.
Use stainless steel wire for squirrel snares (use Williams 16 pound test steel fishing line).	Stainless steel is stronger and more flexible than brass, with the added benefit of a smaller diameter and therefore, a better constricting effect.	Don't use brass or other wire for squirrel snares.	In addition to being weaker, brass wire does not slide across itself as smoothly as stainless steel and this causes resistence to the loop closing tightly. It is also thicker, with a less constricting effect. Burnt strands of snare cable may be unevenly tempered and brittle spots may break, allowing the squirrel to escape with the snare attached.

HUMANE TRAPPING - DO's and DON'T's CHART



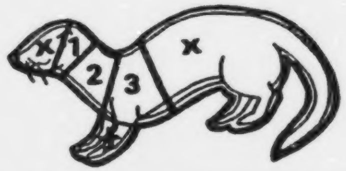
KILLING SNARES

Humane Practice	Reasons for	Inhumane Practice	Reason against
Set snares more than 24" above the ground when making squirrel snare sets.	This will ensure that the squirrel will be freely suspended and will die quickly.	Don't place any snare less than 24" above the ground when making squirrel snare sets.	This may allow the squirrel to touch the ground and support itself, prolonging the time to death.
Use a simple knot for making the eye for the loop on a squirrel snare. See the illustration on Page ____.	This will allow the whole loop of the snare to close tightly to ensure a humane death.	Don't twist the wire around itself when making the eye for the loop on a squirrel snare.	This will cause a stiff section on the loop which will prevent the snare from closing tightly, resulting in an inhumane capture.
Place the eye of the snare along the top half of the loop, when setting squirrel snares.	The snared squirrel is most likely to come to rest with the eye of the snare behind it's head. This position renders the most humane death.	Don't place the eye of the snare along the bottom half of the loop when setting squirrel snares.	The snared squirrel may be suspended with the eye of the snare under it's chin where it can grasp the wire with it's front feet and therefore prolong it's death.
Check and adjust snare sets frequently (especially after a heavy snowfall or freezing rain).	This will ensure that the snare is still properly set and is in operating condition. If an animal has been captured and the snare has malfunctioned, the trapper will be able to deal with the situation without unnecessary delay.	Do not leave snare sets untended for a prolonged period (especially after a heavy snow fall or rain).	When there is a heavy snow fall, the snare may be disturbed or the approach height changed. When there is rain, the snare may freeze up. A passing animal may also disturb the set. If the set is disturbed in any way, it may malfunction and result in an inhumane capture.



CAPTURE DEVICE - SELECTION CHART

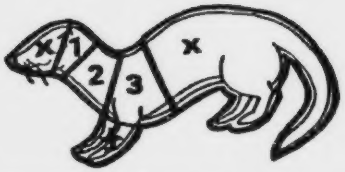
SPECIES	RECOMMENDED				ALTERNATIVE			
	Type	Size	Make	Number	Type	Size	Make	Number
Badger	Kill-type (double spring)	7" - 8" jaw opening	Victor Conibear	220, 280	X	X	X	X
			Northwoods	200, 250				
Beaver	Kill-type (double spring)	8" - 10" jaw opening	Victor Conibear	280, 330	Snare (under water only)	8" - 10" loop	X	7 - 16 guage and proper lock
			Northwoods	250, 300				
	X	X	X	X	Foothold - long spring (drown set only)	4 3/4" - 6" jaw spread	Victor	#2, #3
							Northwoods	#2, #3
					Foothold (Coil spring) (drown set only)	5 3/8" - 6 1/2" jaw spread	Victor	#175, #2, #3
							Northwoods	#1 3/4, #2, #3
					Foothold Jump (drown set only)	5 1/8" - 7 1/4" jaw spread	Victor	#1 1/2, #3



CAPTURE DEVICE - SELECTION CHART

SPECIES	RECOMMENDED				ALTERNATIVE			
	Type	Size	Make	Number	Type	Size	Make	Number
*Coyote	Killing snare (with Nor-loc or Alberta lock	14" loop	X	3/32 airplane cable				
	Foothold Coil spring (padded jaw)	5 3/8" jaw spread	Victor	#3	Foothold (coil spring - offset jaw)	5 1/2" - 6 1/2" jaw spread	Victor	#2, #3
							Northwoods	#2, #3
					Foothold (long spring - offset jaw)	5 1/2" - 6" jaw spread	Victor	#3
							Northwoods	#2 1/2

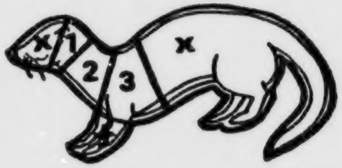
*Potential for footsnares and power snares for coyote is recognized by the Federal Provincial Committee for Humane Trapping (FPCHT), 1981



CAPTURE DEVICE - SELECTION CHART

SPECIES	RECOMMENDED				ALTERNATIVE			
	Type	Size	Make	Number	Type	Size	Make	Number
Fisher	Kill type (double spring)	6" - 7" jaw spread	Victor Conibear	#160, #220	X	X	X	X
			Northwoods	#175, #200				
*Fox	Kill snare (with Nor-loc or Alberta lock)	10" loop	X	1/16" Airplane type cable				
	Foothold (padded jaw) coil spring	4 7/8" jaw spread	Victor	#1 1/2	Foothold (offset jaw - coil spring)	5 3/8" - 5 3/4" jaw spread	Victor	#175, #2
							Northwoods	#2
					Foothold (offset jaw - long spring)	4 3/4" jaw spread	Victor	# 1 1/2
							Northwoods	# 1 1/2

*The potential for footsnares and power snares for fox is recognized by FPCHT, 1981.
See equipment section of this manual for illustrations and instructions on modifying foothold traps.

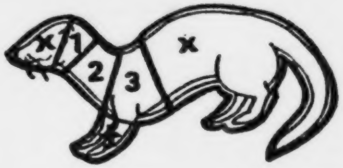


CAPTURE DEVICE - SELECTION CHART

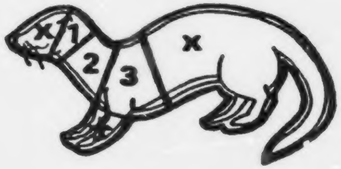
SPECIES	RECOMMENDED				ALTERNATIVE			
	Type	Size	Make	Number	Type	Size	Make	Number
*Lynx and Bobcat	Kill-type (double spring)	8" - 10" jaw opening	Victor Conibear	#280, #330	X	X	X	X
			Northwoods	#250, #300				
	Kill snare (Nor-loc or Alberta lock)	8" - 10" loop	X	1/16" Airplane type cable	X	X	X	X
	Foothold (Coil spring padded jaw)	4 7/8" - 5 3/8" jaw spread	Victor	# 1 1/2, #3				

*The potential for footsnares for lynx is recognized by FPCHT, 1981.

CAPTURE DEVICE - SELECTION CHART



SPECIES	RECOMMENDED				ALTERNATIVE			
	Type	Size	Make	Number	Type	Size	Make	Number
Marten	Kill-type (double spring)	4 1/2" - 6 1/2" jaw opening	Victor Conibear	#120, #160	Foothold (double long spring) kill set only	5 7/8" jaw spread	Victor	#4
			Northwoods	#120, #175		6" jaw spread	Northwoods	#3
Mink	Kill-type (double spring) (Land or water)	4 1/2" - 6 1/2" jaw opening	Victor Conibear	#120, #160	Foothold double long spring (kill set only	5 7/8" jaw spread	Victor	#4
			Northwoods	#120, #175		6" jaw spread	Northwoods	#3
	X	X	X	X	Submarine (under water and baited)	4" cone opening	X	X



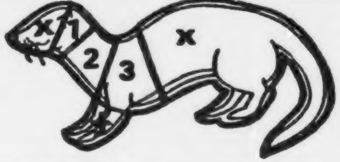
CAPTURE DEVICE - SELECTION CHART

SPECIES	RECOMMENDED				ALTERNATIVE			
	Type	Size	Make	Number	Type	Size	Make	Number
Muskrat	Kill-type (under water)	6" - 7" jaw opening	Victor Conibear	#160, #220	Kill-type under water fixed position	4 1/2" jaw opening	Victor Conibear	#110
			Northwoods	#150,#175,#200			Northwoods	#100
	Kill-type (double spring) (on land or float)	4 1/2" - 6 1/2" jaw opening	Victor Conibear	#120, #160	Foothold (long spring) drown set only	4" - 4 3/4" jaw spread	Victor	#1, #1 1/2
			Northwoods	#120, #175			Northwoods	#1, #1 1/2
	X	X	X	X	Foothold (coil spring) drown set only	4 3/4" - 5" jaw spread	Victor	#1 1/2
							Northwoods	# 1 1/2
					Submarine (underwater set only)	4" cone opening		
Otter	Kill-type (double spring) underwater	7" - 8" jaw opening	Victor Conibear	#220, #280	Kill-type (double spring) underwater	10" jaw opening	Victor Conibear	#330
			Northwoods	#200, #250			Northwoods	#300

CAPTURE DEVICE - SELECTION CHART

SPECIES	RECOMMENDED				ALTERNATIVE			
	Type	Size	Make	Number	Type	Size	Make	Number
*Raccoon	Kill-type (double spring)	7" - 8" jaw opening	Victor Conibear	#220, #280	X	X	X	X
			Northwoods	#200, #250				
Squirrel	Kill snare	1 3/4" loop	Williams	16 lb. test monel steel wire	Kill-type	4 1/2" - 5" jaw opening	Victor Conibear	#110, #120
							Northwoods	#100, #120
	Foothold long spring (kill set only)	4" - 4 3/4" jaw spread	Victor	#1 1/2	X	X	X	X
			Northwoods	#1, #1 1/2				
Skunk	Kill-type (double spring)	7" - 8" jaw opening	Victor Conibear	#220, #280	X	X	X	X
			Northwoods	#200, #250				

*Potential for use of modified foot snare being studied (FPCHT), 1981



CAPTURE DEVICE - SELECTION CHART

SPECIES	RECOMMENDED				ALTERNATIVE			
	Type	Size	Make	Number	Type	Size	Make	Number
Weasel	Foothold Long spring (kill set only)	4" - 4 3/4" jaw spread	Victor	#1 1/2	Kill-type (double spring)	4 1/2" - 5" jaw opening	Victor Conibear	#120
			Northwoods	#1, #1 1/2			Northwoods	#120
*Wolf	Kill snare (Nor-loc or Alberta lock)	20" loop	X	3/32" airplane type cable	*** Foothold hold Double Longspring (offset)	8 3/4" jaw spread	Newhouse	#4 1/2
	Foothold (padded) double long spring	8 3/4" jaw spread	Newhouse	#4 1/2	Foothold coil spring (offset)	7 1/2" jaw spread	Helfrich Eliminator	#750
	** Foothold coil spring padded	7 1/2" jaw spread	Helfrich Eliminator	#750W				
Wolverine	Body grip (double spring)	8" - 10" jaw opening	Victor Conibear	$280, #330	X	X	X	X
			Northwoods	#250, #300				

*Potential for use of foot snare and power snare, presently undergoing testing (FPCHT).
**Padding will have to be installed by trapper.
***Offset modification will have to be performed by the trapper.

TRAP SET LOCATIONS

Species	Habitat	Set Locations	Other Comments
Badger	Open grassland or farming areas, having abundant burrowing rodents	At or near, den, burrow, diggings, baited strong cubby or bos	Fresh diggings in winter, (particularly if tracks don't lead away) is good sign for a set location.
Bobcat	Avoids heavy forest, prefers thinly treed areas, rocky hillsides, and dry coulees. Sometimes found in rocky, mountainous country. Also frequents arid regions, farmlands, or partially logged areas	On or near bobcat or rabbit trails, near rocky outcrops on coulee banks, along fence rows or field borders, especially where rabbit or mouse sign is abundant	
Beaver	Lakes, ponds, streams, channels, ditches, dugouts and marshes especially if bordered by aspen and/or willow	On runs between active lodges, bank dens, near dam, scent mounds, shore channels, near tree cuttings, around feed beds	Methods of determining an Active Colony: 1. Fresh work or mud plaster on lodge and dam 2. Fresh cuttings on bank and lodge 3. Fresh material in feed bed 4. Moisture or frost in vent hole on top of lodge 5. Thinner ice around lodge and other runs 6. Absence of tall weed growth on the lodge and dam
Coyote	Open plains, farmland, forested areas, mountain foothills, suburban areas	Bait stations (well back 75 yds. or more) on their trails -leading to or from bait - on or near their trails at narrow points in trail or near scent stations close to creeks & coulees - in feed areas where cottontail rabbits or other rodent tracks are abundant - snowmobile trails - near fence lines and around edges of fields	Place the bait one to three weeks prior to setting capture devices, in order that trails will be well established by the furbearers.

TRAP SET LOCATIONS

Species	Habitat	Set Locations	Other Comments
Fisher	Variety of heavy forested areas so long as there is something to eat, avoid large open areas	Near good active squirrel dens and middens Along slopes above streams Edge areas around swamps and water bodies Bait (set on pole)	
Fox	Mixed terrain, farm country with abundant fence rows, gullys, as well as boreal forest, open plains and the barren lands	Bait stations (set well back 75 yds. or more) on trails leading to or from bait On or near their trails, especially at narrow points or near where scent stations are located In areas where rabbit or other rodent tracks are abundant Along fence lines and hedgerows Around fields	
Lynx	Boreal forested areas, usually where snowshoe hare are abundant	On or near lynx, hare or snowmobile trails Along ridges, (near the top) bordering streams, swamps and lakes In feed areas where hare or other rodent tracks are abundant (ie: heavy irregular regrowth areas from old burns or logging operations) On or near beaver dams and lodges	Ideal habitat for hares (and consequently lynx) consists of: dense evergreen forest, such as is found in lowland swamps (which provides cover), interspersed with open areas of shrubby growth (which supply food). Such conditions are often found where logging or fire has produced irregular openings in lowland conifer growth. However, extensive, uniform stands of second growthy are not suitable due to poor cover and visibility.
Marten	Mature, coniferous or mixed boreal forest (avoids burned areas) Steep, well timbered valleys in mountains and foothills	Where their tracks and other sign are evident, near squirrel dens or middens, grassy or mossy areas with abundant vole or mouse sign, bait - (set on pole or in a box) on banks or ridges above creeks	

TRAP SET LOCATIONS

Species	Habitat	Set Locations	Other Comments
Mink	Banks along streams, lakes, ponds, sloughs, marshy areas, forested and mixed farming areas (ie: where irrigation ditches aare common)	Where tracks or other sign is abundant In natural or artificial holes on banks or shores Holes in muskrat or beaver lodges, bank runs or brush piles On trails in thick grass or brushy areas	
Muskrat	Marshy areas, ponds, sloughs, lakes, slow moving streams, irrigation or drainage ditches or dugouts Most places where there is sufficient aquatic vegetation and a stable adequate water supply	On runs between lodges, pushups, shore, bank holes, trails and feed stations On floating objects (helps if baited and scented) Baited sets near muskrat activity	
Otter	Rivers, lakes, streams, in the boreal forest	Near open water areas in winter such as rapids, bank holes, beaver dam spillways, etc. At abandoned beaver lodges, especially if other sign is evident Near toilet areas on shore On short trails joining water bodies	
Raccoon	Forested areas near water Farmland and urban localities	Along lake, stream and pond banks where tracks and sign are evident Near abandoned farm buildings, along fence lines, hedgerows where tracks are present Around corn fields	

TRAP SET LOCATIONS

Species	Habitat	Set Locations	Other Comments
Skunk	Avoids heavy forest, prefers partially open country with mixture of bush, fields and hedgerows, often found near human habitation, farms, towns, urban areas, near dumps or abandoned buildings	Near deserted buildings, garbage dumps, culverts, etc., at holes in creek banks where sign is abundant, near beaver ponds	*Care should be taken in making sets near human habitation to avoid capturing domestic animals. It may be preferable to use live traps in these situations, as skunk are eaily taken in these.
Squirrel	Boreal forest with good stands of coniferous trees	Near dens, middens, on trails (usually set on poles)	
Weasel	Boreal forest, farm land, especialy near water	Near brush piles, stone or log piles abandoned buildings Along creeks, lake shores, beaver ponds and lodges, fence lines and hedgerows Bank holes Near squirrel dens and middens Bait in frequented areas	Easily taken in the can set
Wolf	Boreal forest, fringe farm lands, also on the barren lands and mountainous foothills	Bait stations set well back on trails leading to and from bait On or near their trails at narrow points or a scent post On or near snowmobile trails they are frequenting	
Wolverine	Found primarily in northern wilderness areas, frequent heavily forested, broken, rugged, mountainous areas; also on barren lands, often migrates high into subalpine forests, foraging near timberline and on talus slopes	At bait stations, or wolf or hunter kills, on or near trails at narrow points or a scent post, at trap sets that he has previously raided, on or near snowmobile trails they are frequenting, at talus slopes, lakes or ridges and along treeline areas	

RECOMMENDED TRAP SETS

Land Sets

Type of Capture Device	No.	Name of Set	Recommended Species	Season Use	Desirable Qualities	
					Humane	Other
Foot-hold	1.	Dirt Hole Set	Wolf/Coyote Fox/Bobcat	Fall	1. In many areas, there is no acceptable alternative for these long-legged species.	1. Good for furbearers of the canid (dog) family.
	2.	Scent Post Set	Wolf/Coyote Fox	Throughout Trapping Season	2. Padded or offset jaw traps reduce discomfort. 3. Daily checking will minimize holding time.	2. Exploits the natural habits and keen sense of smell of these animals.
	3.	Blind Trail Set	Wolf/Coyote	Throughout Trapping Season	4. Non target animals may be released if caught.	(a) The dirt hole set takes advantage of the canids' habit of burying and digging up food.
	4.	Cubby	Lynx/Bobcat	Throughout Trapping Season	5. Proper use of correct lure helps avoid non target species.	(b) The scent post takes advantage of the canids' habit of establishing territorial scent posts and their attraction to specific scents. 3. When traps are properly treated and carefully set, they are difficult for these wary species to detect. 4. Cubby set exploits cat family habit of checking moving objects or darkened enclosed brushy areas for their prey.

RECOMMENDED TRAP SETS

Land Sets

Type of Capture Device	No.	Name of Set	Recommended Species	Season Use	Desirable Qualities	
					Humane	Other
Kill-type	5.	Hole or Box Sets	Fisher/Mink Marten/ Raccoon/ Badger/Skunk Wolverine/	Throughout Trapping Season	1. Selective 2. Kills quickly and efficiently 3. The target animals' approach is controlled so it is guided into the trap, resulting in a correct killing strike.	1. These sets take advantage of the natural habits of the animal. (a) Weasel family habit of exploring every available hole in search of food. (b) Marten or fisher's climbing habits.
	6.	Pole Set	Fisher/ Marten	Throughout Trapping Season		
	7.	Can Set	Weasel/Mink Squirrel/ Marten	Throughout Trapping Season		2. The can set may be used to convert a proper sized foot-hold trap into a body gripping quick kill device.
	8.	Cubby Set	Lynx/Bobcat	Throughout Trapping Season		
	9.	Pen Set	Badger	Throughout Trapping season		3. The trap in the pen set will stay free of snow.
Snares	10.	Trail Snare Set	Lynx/Coyote Fox/Wolf	Throughout Trapping season	1. Selective 2. Kills effectively when properly constructed and used.	1. Light and easy to transport and continues to work well in bad weather when a trap may freeze up in snow or freezing rain. 2. When properly treated and carefully set, are difficult to detect (good for wary species). 3. Exploits the animals travel and feeding habits. 4. The squirrel pole set also guides the approach to the set, the same as other animals on their trails. 5. Some of these sets have the potential for multiple catches.
	11.	Squirrel Snare Pole	Squirrel	Throughout Trapping season		
	12.	Cubby With Wings Snare Set	Lynx/Bobcat	Throughout trapping season		
	13.	Bait station set	Wolf, fox, coyote	Throughout Trapping season		

RECOMMENDED TRAP SETS

Water Sets

Type of Capture Device	No.	Name of Set	Recommended Species	Season Use	Desirable Qualities	
					Humane	Other
Foot-hold	*14.	Slide Wire Shore Set	Beaver/ Muskrat	Spring/ Fall	1. When properly used, animal is held under water and dies quickly. 2. When properly used, animal is held under water and dies quickly.	1. Provides an acceptable alternative in situations where a kill-type trap set is unsuitable or unusable.
	*15.	Push Up Set	Muskrat	Winter/ Spring		
Kill-type	16.	Run Set	Beaver/ Otter	Throughout Trapping Season	1. Selective 2. Kills quickly and efficiently 3. Animal's approach is controlled so it is guided into the trap, resulting in a correct killing strike.	1. Exploits the natural habits of the animals (eg: to follow runs or attraction to specific foods or scents). 2. Float set adjusts to varying water levels.
	17.	Bait Set	Beaver/ Muskrat/ Otter/	Throughout Trapping Season		
	18.	Float Set	Muskrat	Spring/Fall		
	19.	Under Ice Set	Muskrat	Winter/ Spring		
Snares	*20.	Beaver Snare Pole Set	Beaver	Any season under ice	1. Selective 2. Kills efficiently when used properly.	1. Light, easy to transport. 2. Provides an acceptable alternative in situations where a kill-type trap is unsuitable or unusable.
Sub-marine Trap	*21.	Submarine Set	Muskrat/ Mink	Throughout Trapping Season	1. Kills efficiently.	1. Multiple catch capability. - Trapper should use carefully to avoid overharvest, which can happen quickly. Do not set for more than 2 or 3 days in one location.

*Alternative sets

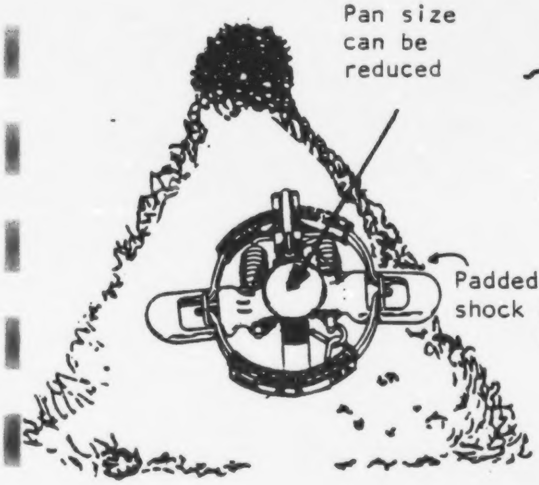
RECOMMENDED

1. FOOT HOLD **LAND SET**

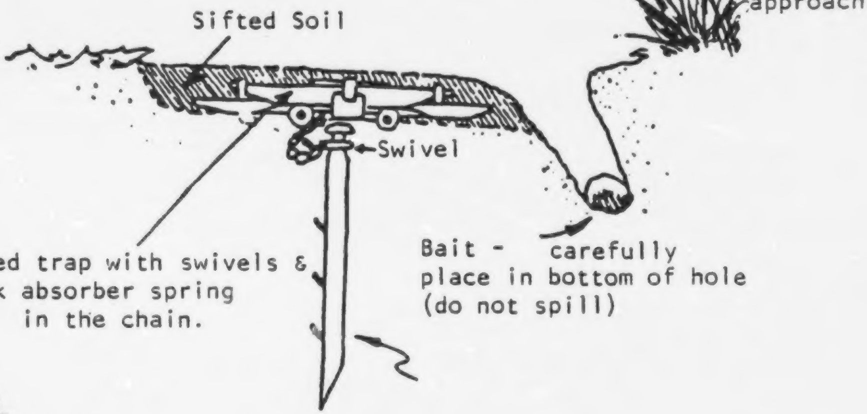
DIRT HOLE SET

FOX,COYOTE, WOLF AND Bobcat

NOTE: Always approach and leave the set from the same direction.

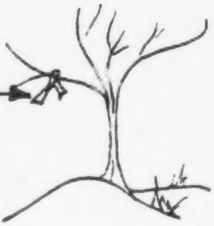

Pan size
can be
reduced

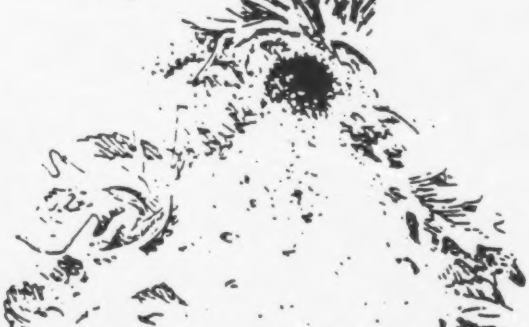
(Cross sectional view of trap set)


Sifted Soil
Backing (may be a rock, tuft of grass, weed, etc.) to control approach
Swivel
Padded trap with swivels & shock absorber spring in the chain.
Bait - carefully place in bottom of hole (do not spill)

For coyote trap, pan should be 8" - 9" in front of the hole and 3" -4" to one side.

1. Make sure trap is firmly bedded and will not move if the animal steps on trap jaw.
2. Sprinkle urine of intended species over trap and area of trap bed.
3. The trap and stake should be properly treated and be protected from undesirable odors while being transported.


Flagging tape



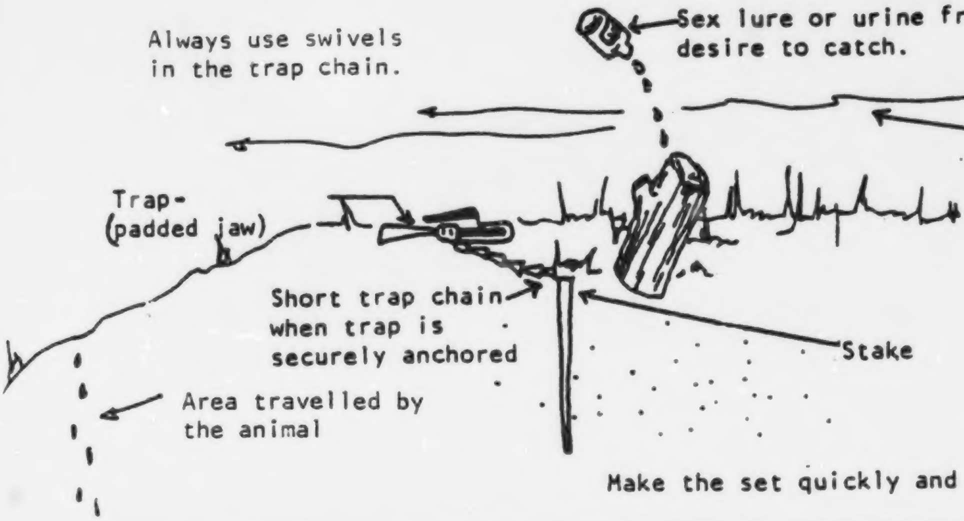
Completed Set

*When making a dirt hole set for bobcat, the hole should be larger than for the dog family (approximately 4" in diameter).

RECOMMENDED 2. FOOT HOLD **LAND SET**

SCENT POST SET

FOX,COYOTE AND WOLF



Always use swivels in the trap chain.

Sex lure or urine from same species you desire to catch.

Try to use prevailing wind to carry the scent from trap site to area travelled by the animal.

Short trap chain when trap is securely anchored

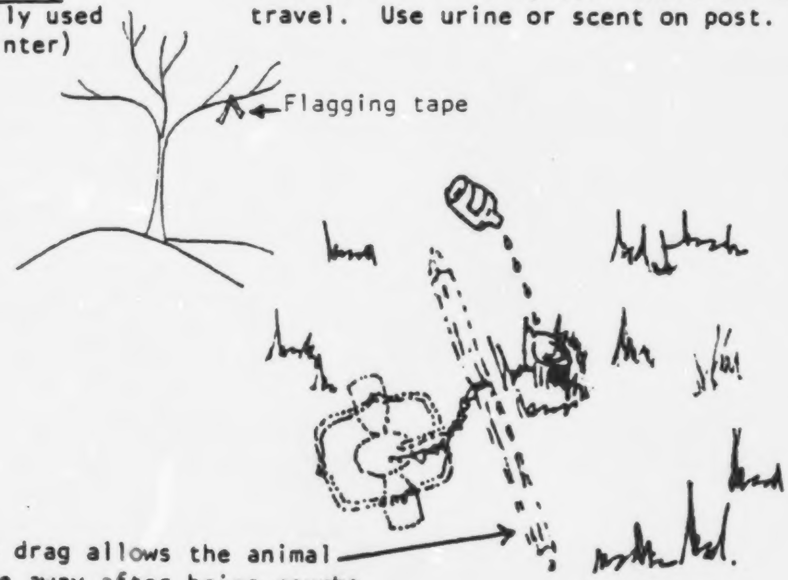
Area travelled by the animal

Be sure trap and stake are treated and protected from foreign odors.

Make the set quickly and leave the way you came.

(Trap drag usually used in winter)

Best if set in sandy soil where animals travel. Use urine or scent on post.



Traps should be firmly bedded to prevent them moving if the animal happens to step on the edge before stepping on the pan.

Traps should be covered with 1/2" of fine dirt. Leave a slight depression over the pan as the animal would sooner step in a hollow than on a bump.

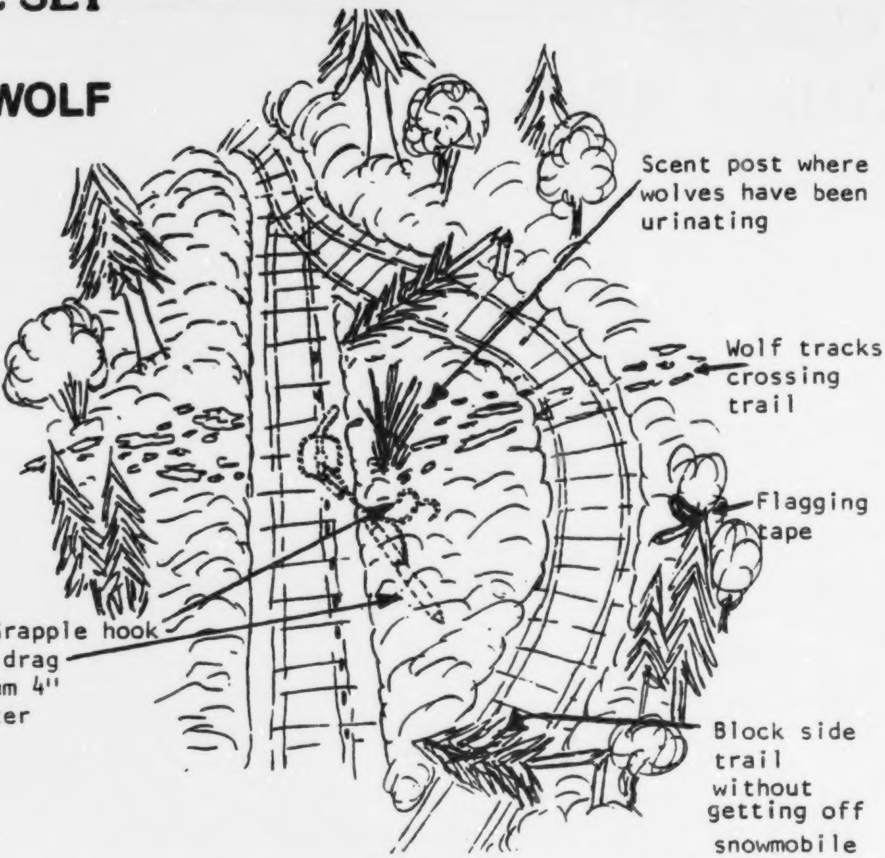
A trap drag allows the animal to move away after being caught (use green wood for drag).
Animal will move to closest cover.

Best on knolls or ridges where animal can see clearly all around.

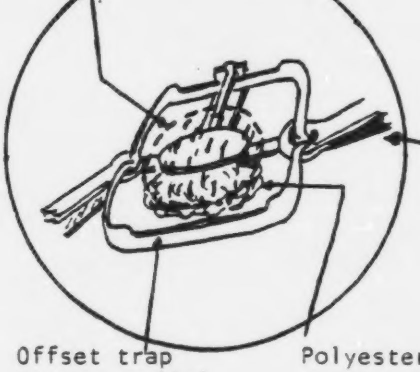
BLIND TRAIL SET

COYOTE AND WOLF

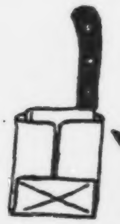
Completed set shows the trap bedded in the hard pack of the trail. The grapple hook and drag are bedded by shoving them into the loose snow beside the trail. (Leave no sign of disturbance at the set).


Scent post where wolves have been urinating
Wolf tracks crossing trail
Flagging tape
Grapple hook
Green drag minimum 4" diameter
Block side trail without getting off snowmobile

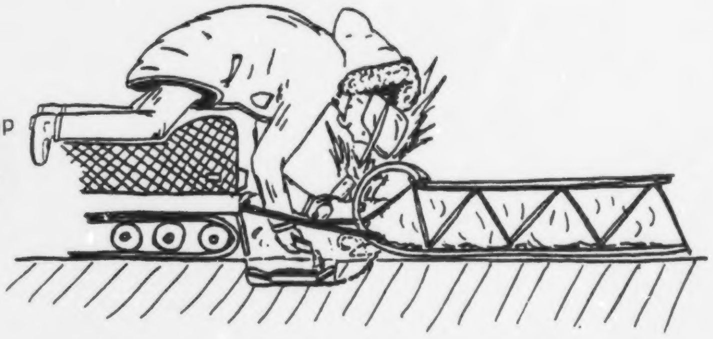
Snowmobile trail, showing wolf tracks in the lowest part of the trail (they usually travel in lowest part of trail).


Tissue paper over trap pan
Offset trap jaws or padded
Polyester fiber padding under trap pan (will not take on moisture)

Double spring trap must be properly treated and handled.



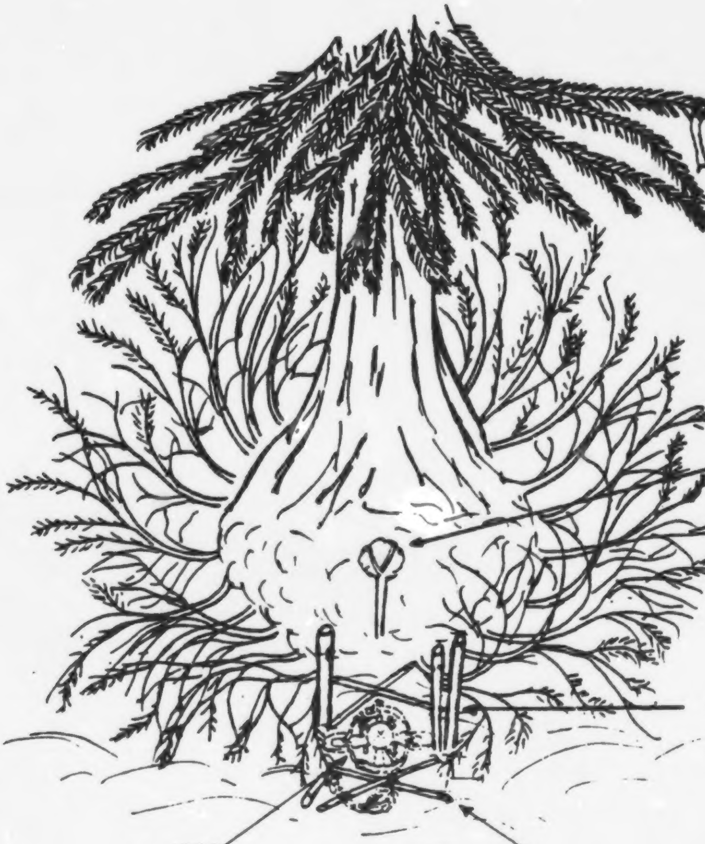
Old meat cleaver or axe to cut hole in hard snow, wrapped in milk carton which can be used to scoop loose snow onto the set.



Trap is set from the rear of the snowmobile or from the toboggan. Do not step off them. Leave no disturbance in the area. The toboggan is pulled over the set after it is made.

CUBBY SET

LYNX & BOBCAT



Flagging tape

Set is best under a large spruce or pine so trap is protected from snow.

Bait or scent

Dry branches stuck in snow to form a pen in front of the tree.

Small, dry sticks standing at ends of trap to keep rabbits from getting in trap.

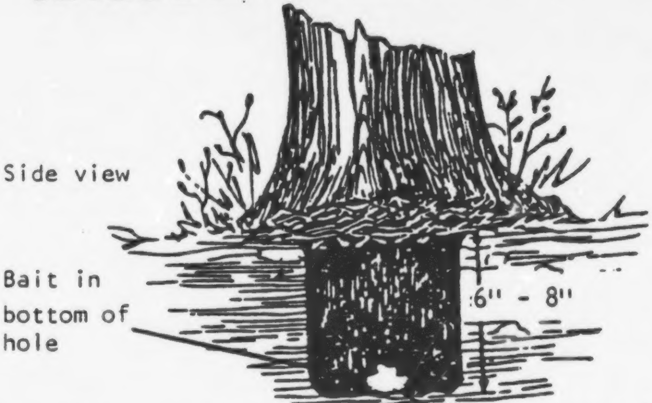
Padded trap set just in front of opening into the cubby

Set may be made using a snare or kill-type trap.

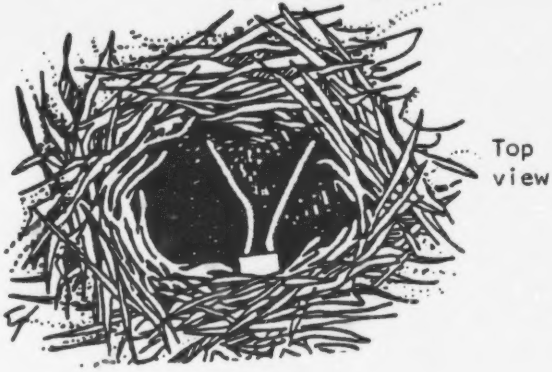
Crossed sticks in front of and behind trap so animal will step between the lowest part of the"X", onto the trap pan.

HOLE AND BOX SETS

FISHER MARTEN MINK WOLVERINE RACCOON SKUNK AND BADGER

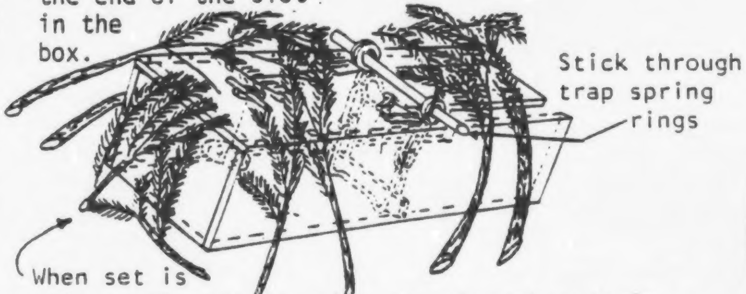

Side view
Bait in bottom of hole
6" - 8"

Camouflage well - little or no trigger should show. Leave just an indication of hole in centre of trap.

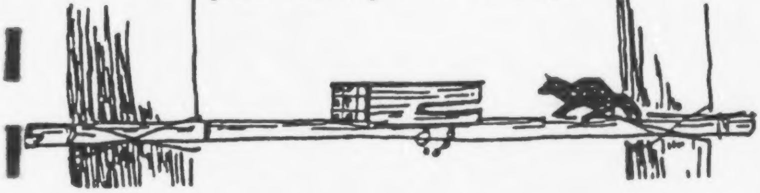


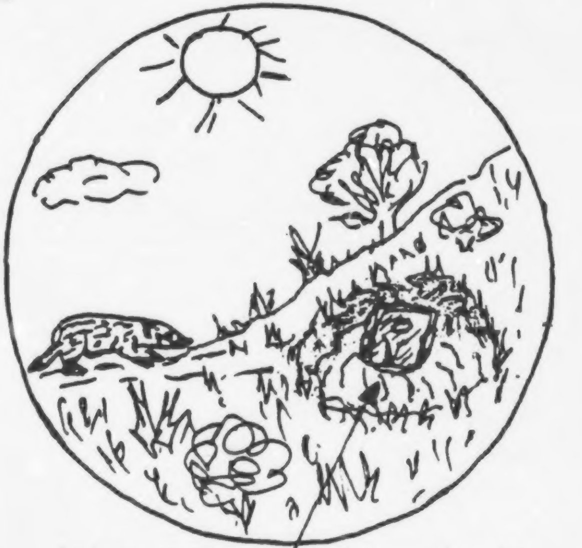
The above set is made by digging a hole 6" - 8" deep and no wider than the trap when it is set in open position. Bait is placed in the bottom of the hole and the trap is laid flat over the hole and the jaws camouflaged with grass and leaves. Also a good set at an existing hole in the ground or on a beaver lodge or muskrat house where mink are entering. If tracks indicate the hole is being used, no bait is necessary.

Leave 3" - 4" space between back of trap spring and the end of the slot in the box.


Stick through trap spring rings

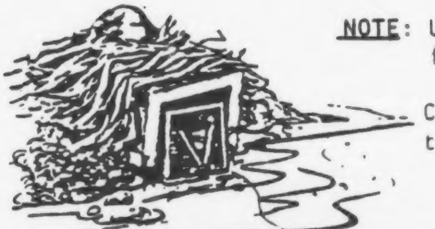
When set is made on the ground, pile some branches on it, just leaving the front open.



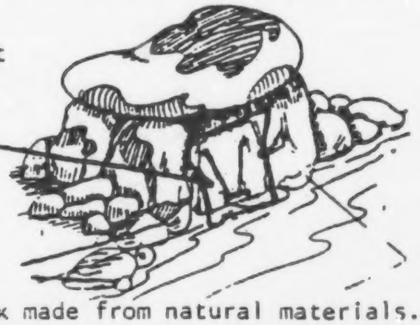


Badger mound - trap is set in the opening and camouflaged

NOTE: Use fresh bait for mink



Box covered with natural materials such as grass, branches, etc.



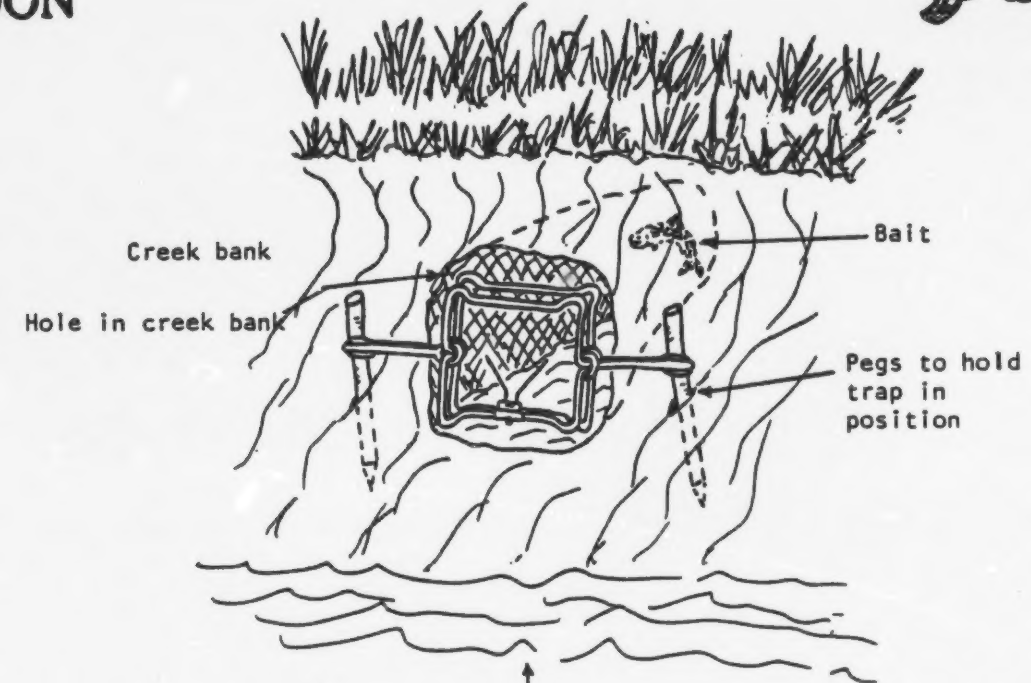
Box made from natural materials.

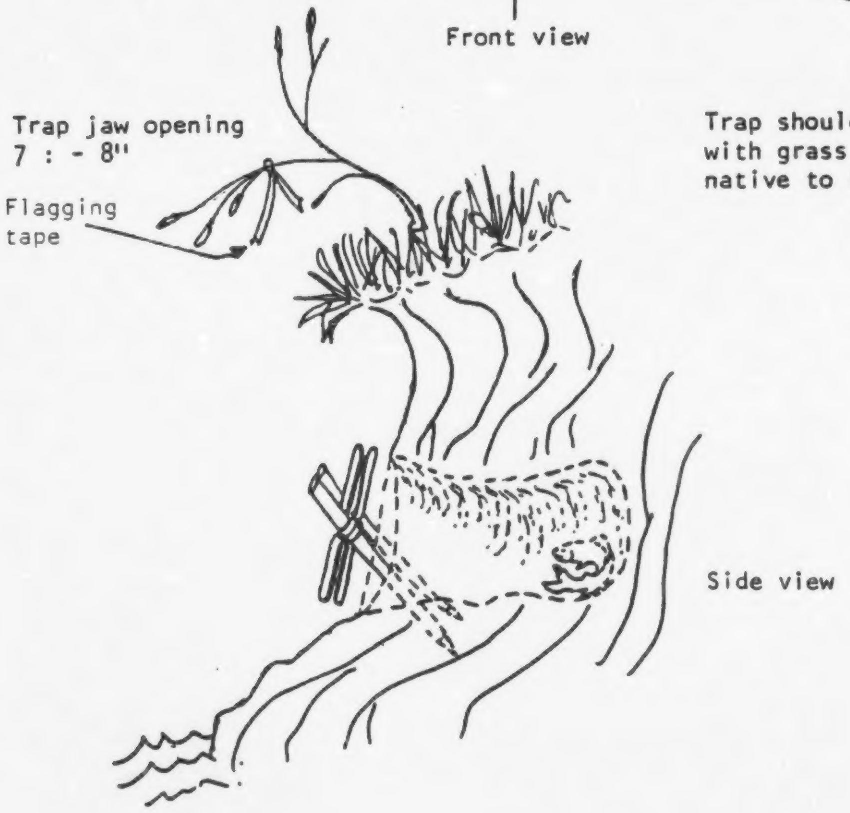
RECOMMENDED

5. (b) KILL TYPE **LAND SET**

HOLE SET

RACCOON

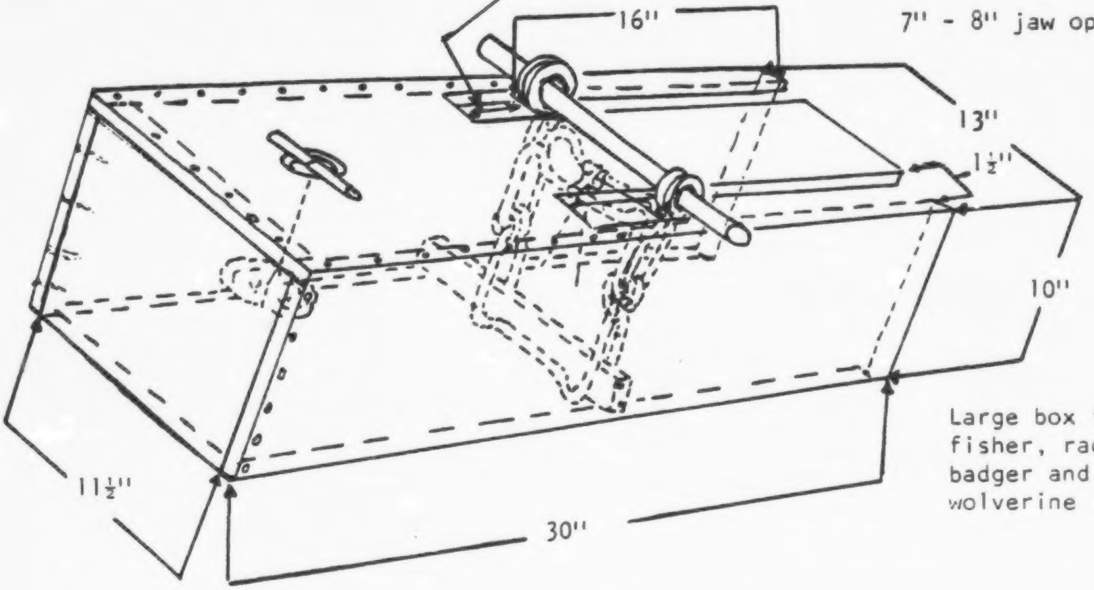

Creek bank
Hole in creek bank
Bait
Pegs to hold trap in position
Front view


Trap jaw opening 7 : - 8"
Flagging tape
Side view

Trap should be camouflaged with grass or other material native to that location.

KILL TYPE TRAP BOX

CONSTRUCTION DETAILS

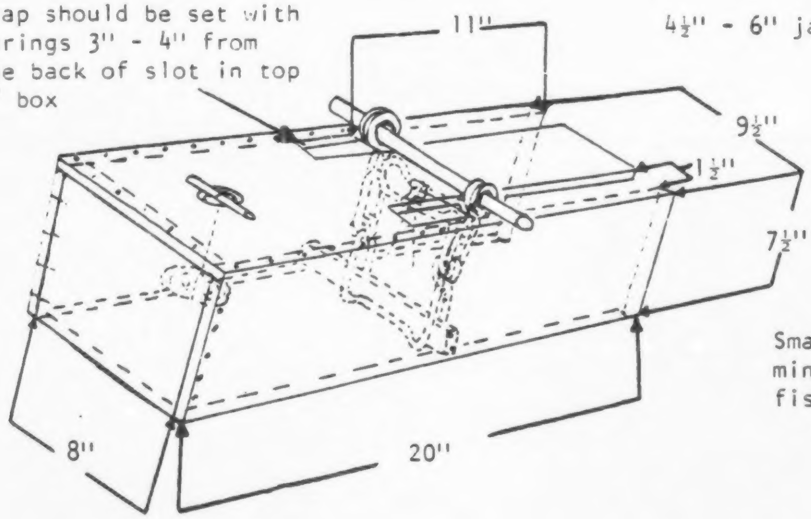


Trap should be set with springs 4'' from the back of slot so it won't jump ahead, when tripped, to avoid catching the animal too far back on its body.

7'' - 8'' jaw opening

Large box for
fisher, raccoon,
badger and
wolverine

There is no bottom in this type of box (more natural for the animals). The trap is supported by the stick through the spring rings.



Trap should be set with springs 3'' - 4'' from the back of slot in top of box

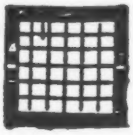
4½'' - 6'' jaw opening

Small box for
mink, marten and
fisher

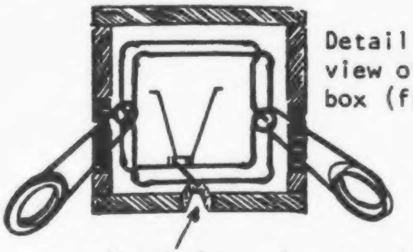
The small crosspiece between the lower trap jaws should be 3/4'' thick and the same length as the back end board. It's height can be varied from 1'' - 2½'' depending on the trap used.

KILL TYPE TRAP BOX

CONSTRUCTION DETAILS

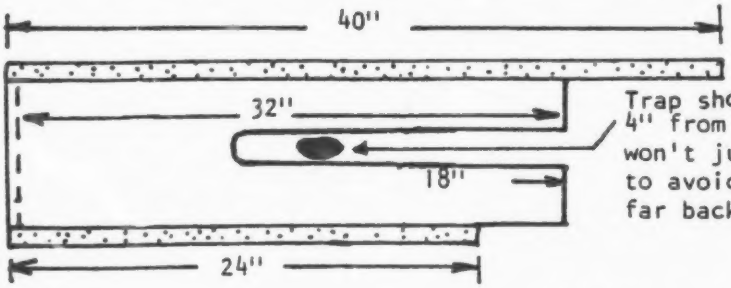


Back end detail of box showing 1" mesh covering, a board may also be used.

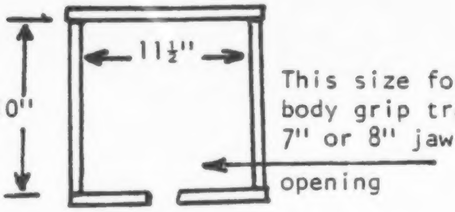


Detail end view of trap box (front)

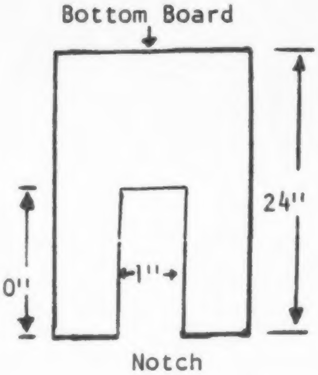
Notch for trigger and dog (see diagram below)



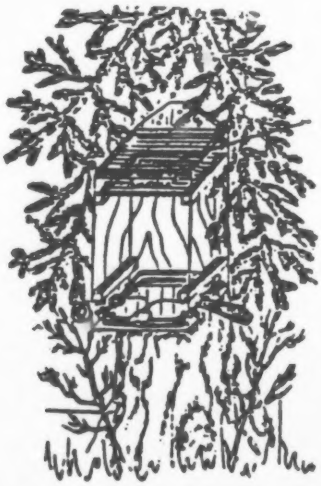
Trap should be set with springs 4" from the back of slot so it won't jump ahead, when tripped, to avoid catching the animal too far back on its body.



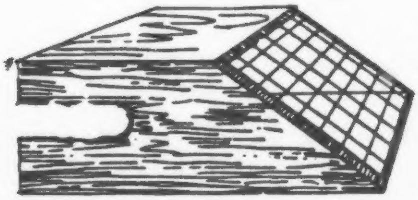
This size for body grip trap with 7" or 8" jaw opening



Make a notch 10" deep and 1" in width so trap dog will be free with trigger on the bottom

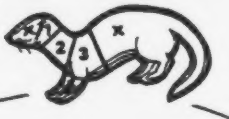


These two illustrations show variations and possible sets for traps in a box.



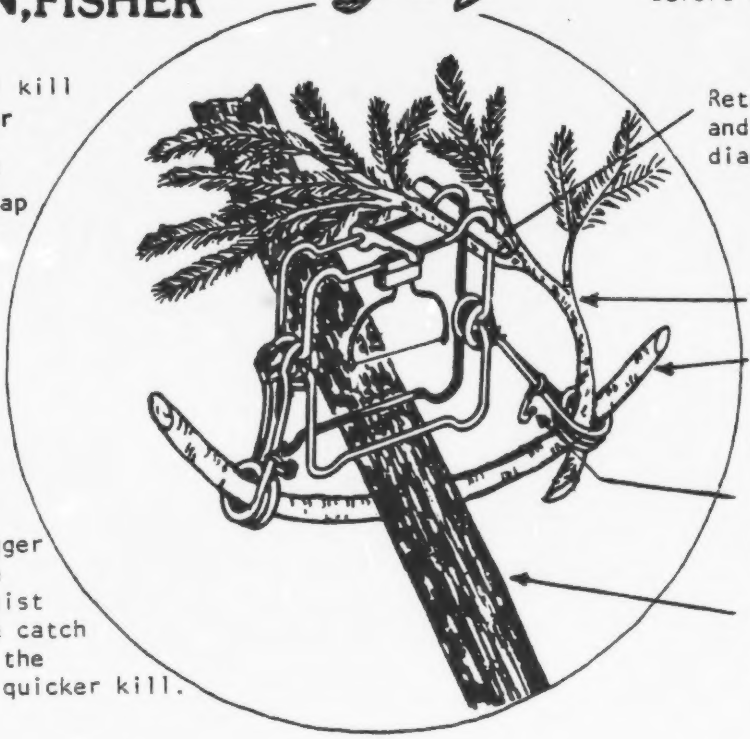
RUNNING POLE SET

MARTEN,FISHER



NOTE: All the factors shown below should be carefully studied before making a pole set.

Use 6'' or 7'' kill type trap for Fisher.
Use 4½'' - 6'' Kill type trap for Marten



Retainer twig 3'' long and approximately 1/4'' diameter

Cover branch

Use approximately 1/2'' green stick placed through trap springs to act as a trap holder.

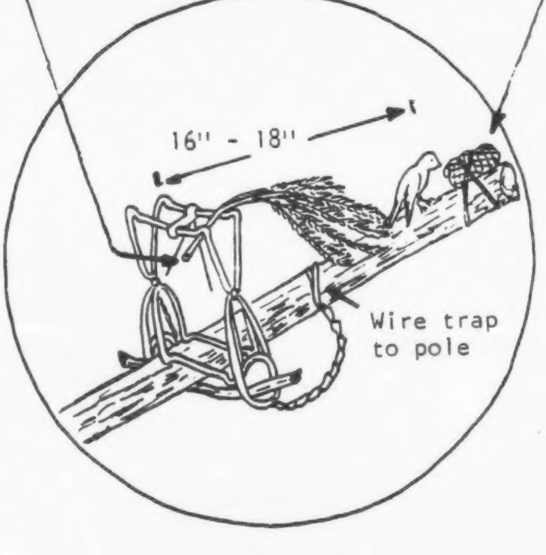
Safety hook placed so it won't interfere with trap when it is tripped.

Running pole is best when it is dry with the bark on.

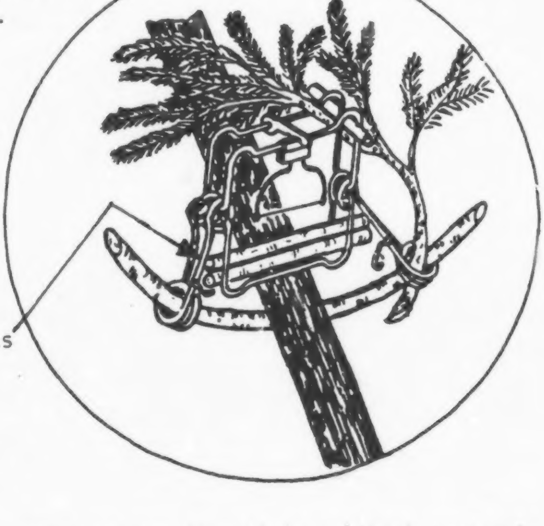
NOTE:
Fine wire between trigger wires on the trap, to assist in more sure catch just behind the skull for a quicker kill.

Butt of branch through top trap jaw and outer end pointing toward bait and close to pole

Bait covered with coarse wire mesh. Birds can feed but mesh will keep the bait in place on the pole.



Birds always feed facing the bait from the trap side on this slanted running pole. With the small branch in this position, it is prevented from backing into the trap.



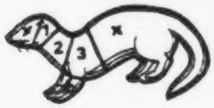
1'' sticks

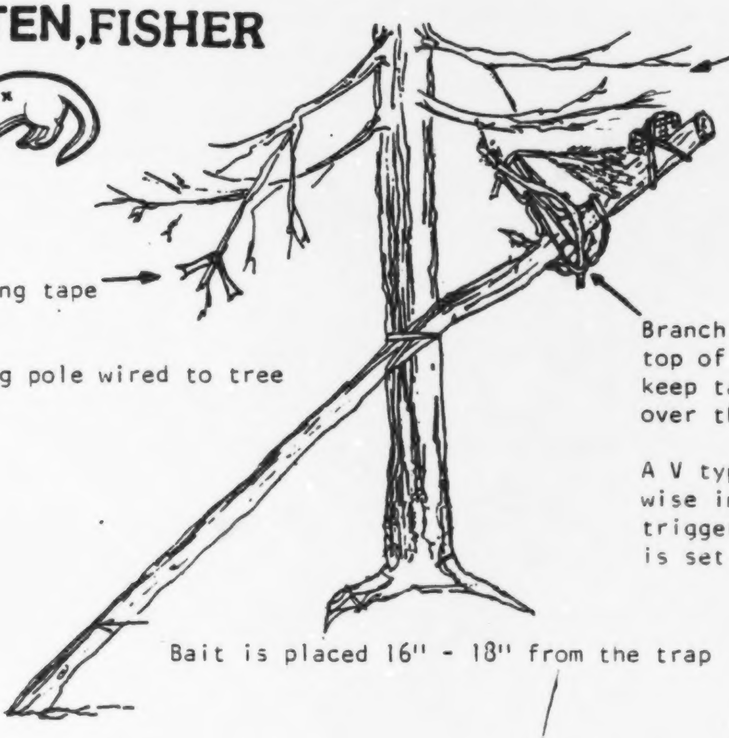
One or two 1'' sticks placed crosswise between the trap jaws will make the trap opening smaller and force the animal to make better contact with the trigger

RECOMMENDED 6 (b) KILL TYPE **LAND SET**

RUNNING POLE SET

MARTEN,FISHER





Cover branches over trap protect from snowfall

Branch through top of the trap with outer end toward bait and close to pole to keep birds out of trap

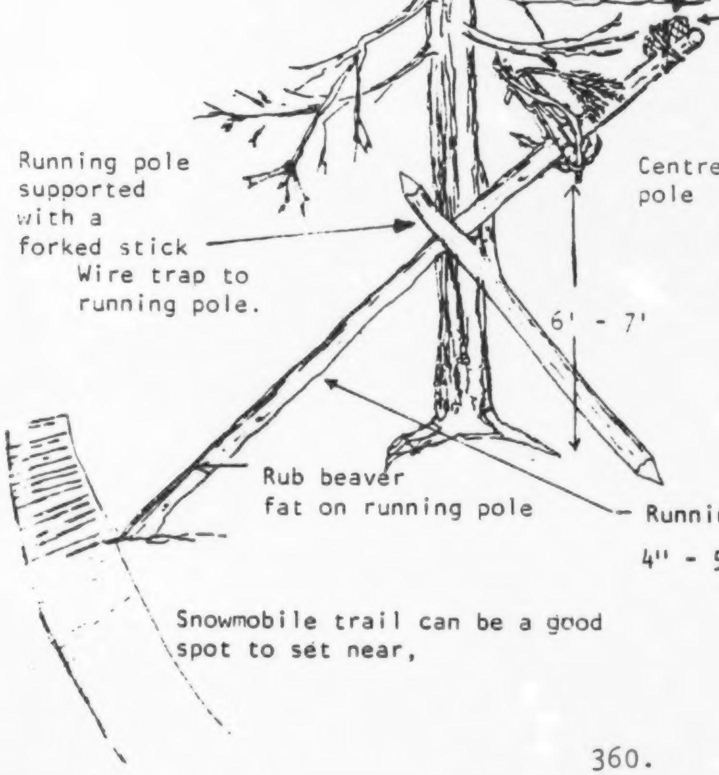
Flagging tape

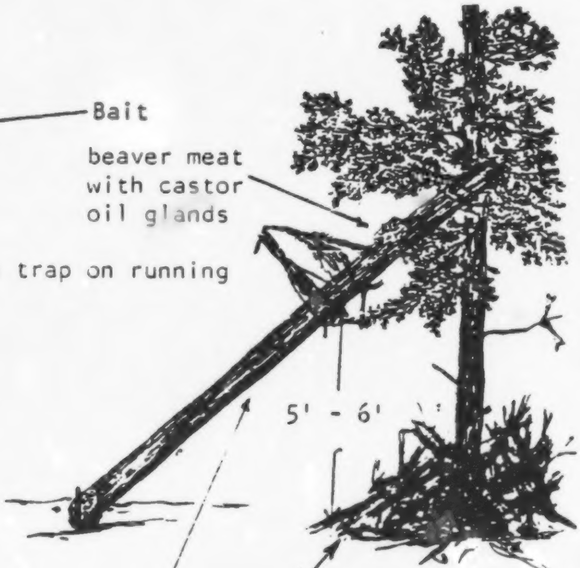
Branch through trap spring and over top of trap, between the jaws, to keep target animal from jumping over the trap.

Running pole wired to tree

A V type notch can be made lengthwise in the pole to accept the trigger and dog when the trigger is set on the bottom

Bait is placed 16" - 18" from the trap





Bait

beaver meat with castor oil glands

Running pole supported with a forked stick

Centre trap on running pole

Wire trap to running pole.

6' - 7'

5' - 6'

Rub beaver fat on running pole

Running pole

4" - 5" diameter

Branches around base of tree so animal won't climb the tree.

Snowmobile trail can be a good spot to set near,

CAN SET

Weasel and Red Squirrel

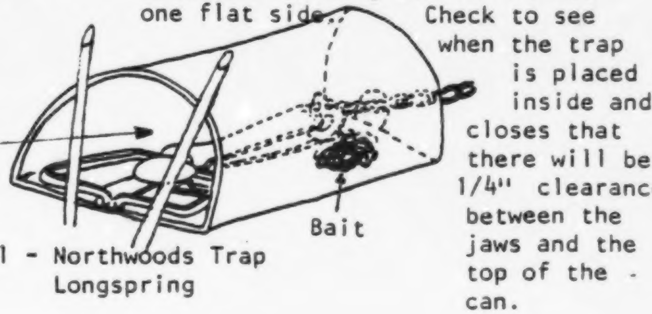
Use #1 Northwoods - Longspring or #1½ Victor Longspring trap.

Be sure trap is fully inside the can.

Flag the set.

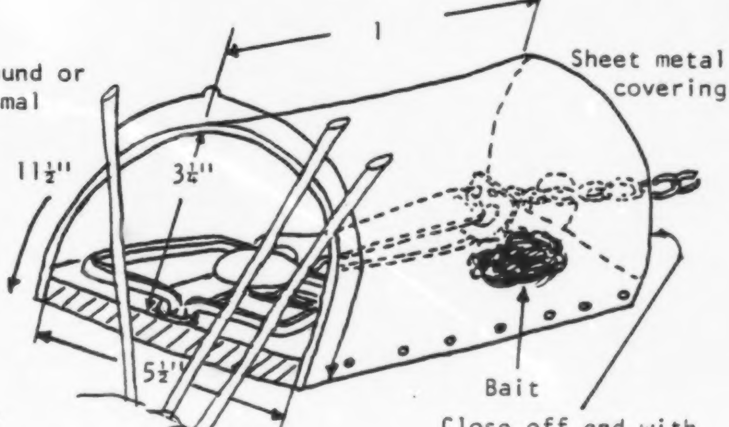
Cut the top off a quart can and shape the opening so that it has one flat side.

Check to see when the trap is placed inside and closes that there will be 1/4" clearance between the jaws and the top of the can.


Bait
#1 - Northwoods Trap
Longspring

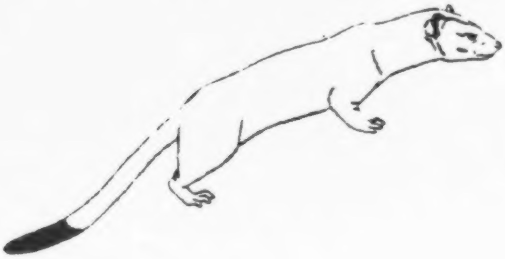
Sticks stuck into ground or snow to guide the animal over centre of trap.

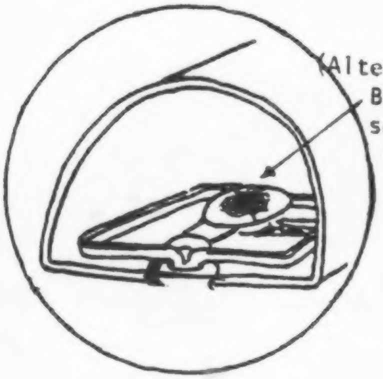
NOTE: The trap chain extends out the back of the can, so the front opening is clear for a more consistent humane catch.


1
11½"
3¼"
5½"
Bait
#1½ Victor Trap
Longspring

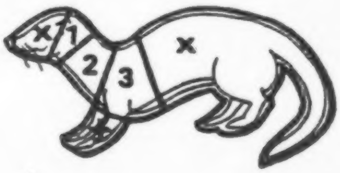
Sheet metal covering

Close off end with mesh or a piece of board - leave hole for trap chain.





(Alternative)
Bait tied securely to trap pan.



RECOMMENDED

CAN SET

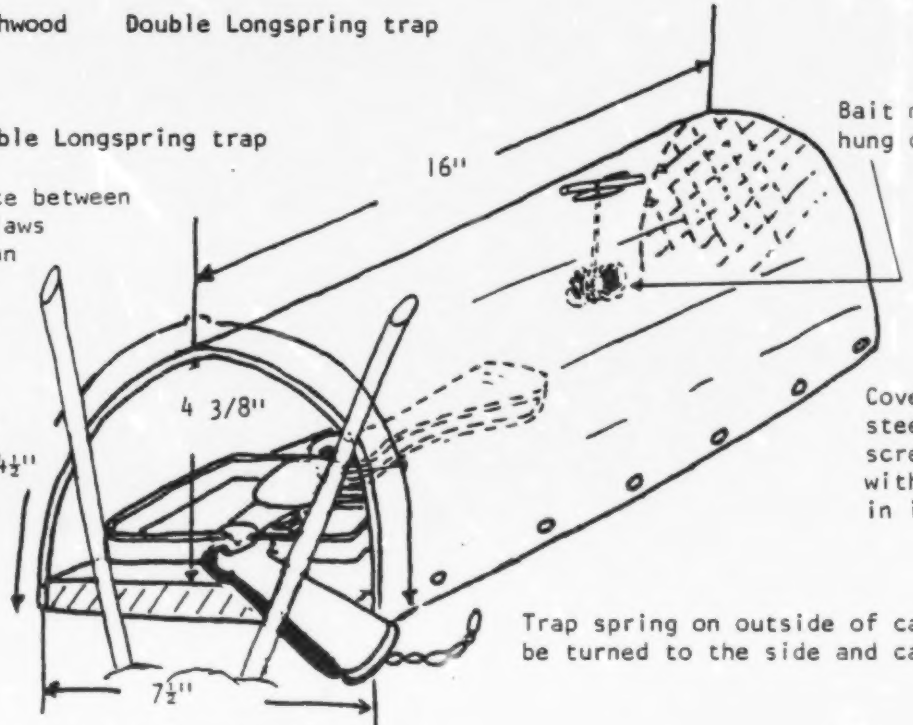
7 (b) FOOTHOLD KILL SET **LAND SET**

MARTEN AND MINK

Use a #3 Northwood Double Longspring trap

or

#4 Victor Double Longspring trap


Flag the set
16"
Bait may be hung on a wire
1/4" clearance between closed trap jaws and top of can
4 3/8"
14½"
Sheet metal
Cover end with steel mesh or screen or board with 1" holes in it.
Trap spring on outside of can should be turned to the side and camouflaged.
7½"

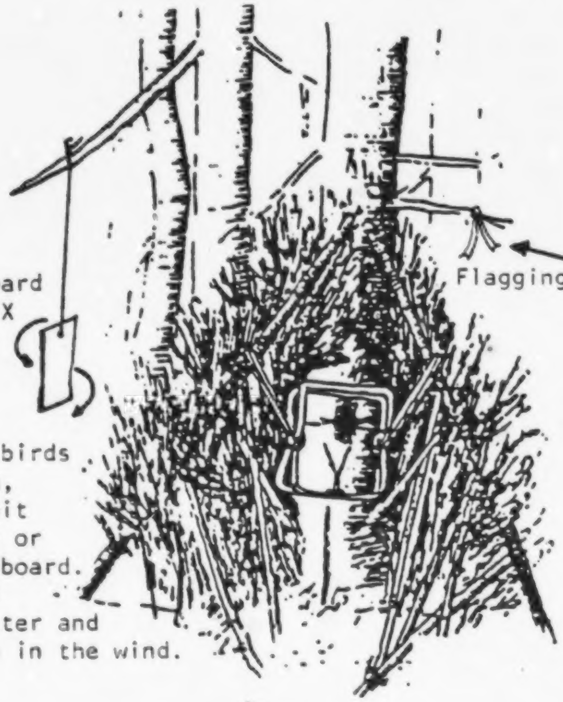
Sticks stuck into ground or snow, to guide animal over centre of trap.

RECOMMENDED 8 KILL TYPE **LAND SET**

CUBBY SET

LYNX & BOBCAT

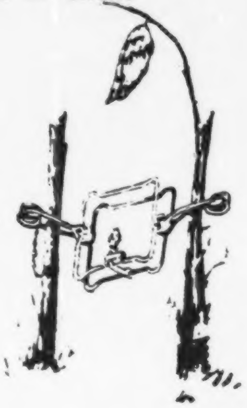
Use trap with 10" jaw opening. Set with bottom 10" off ground or snow.



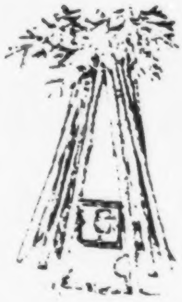
Cardboard is 3" X 8"

Flagging tape

Use birds wing, rabbit skin or cardboard. Will flutter and spin in the wind.



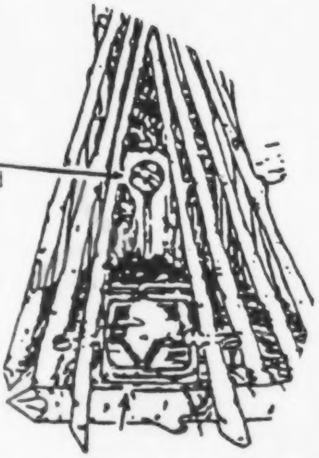
Baited trigger
Use beaver meat with castor scent and add feathers



Cubby size - 3 feet front to back

Lynx Lure:

Two pair of beaver castors, two lbs. of lynx meat or liver, grind, mix and add a bit of catnip.



Scented hay ball
or a scented rabbit foot

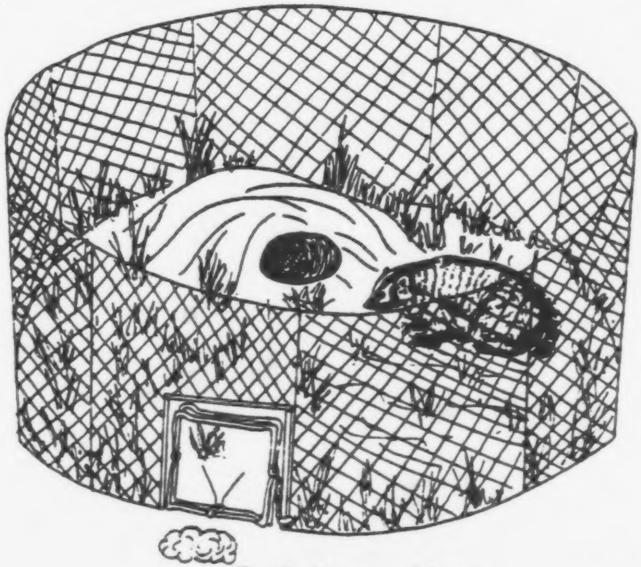
PEN SET

BADGER

Mainly for use in farming areas where transportation is not a problem

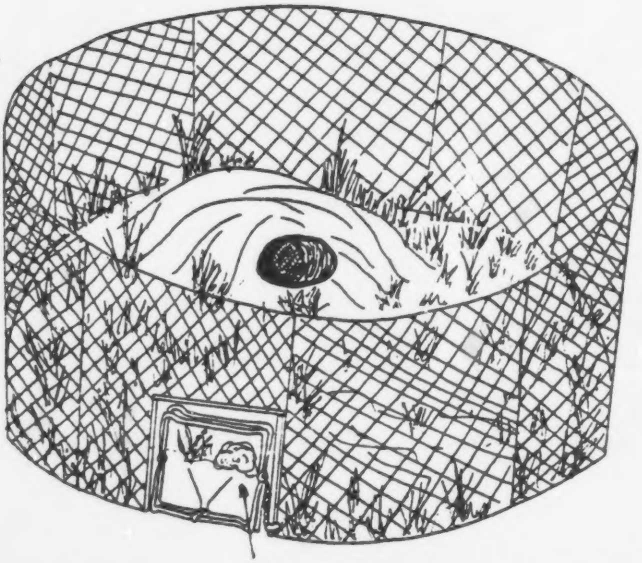
Pen is made from chicken wire or stucco wire. Trap opening is cut into the wire mesh.

Trap jaw opening
7" - 8"



Bait outside pen

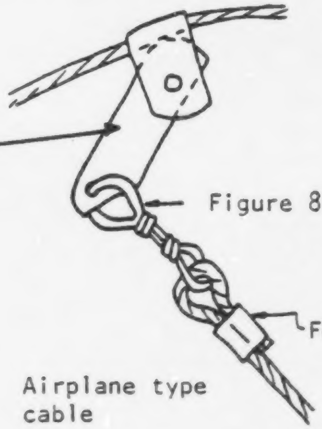
By making this set using a wire mesh, the snow will blow through and not plug the trap.



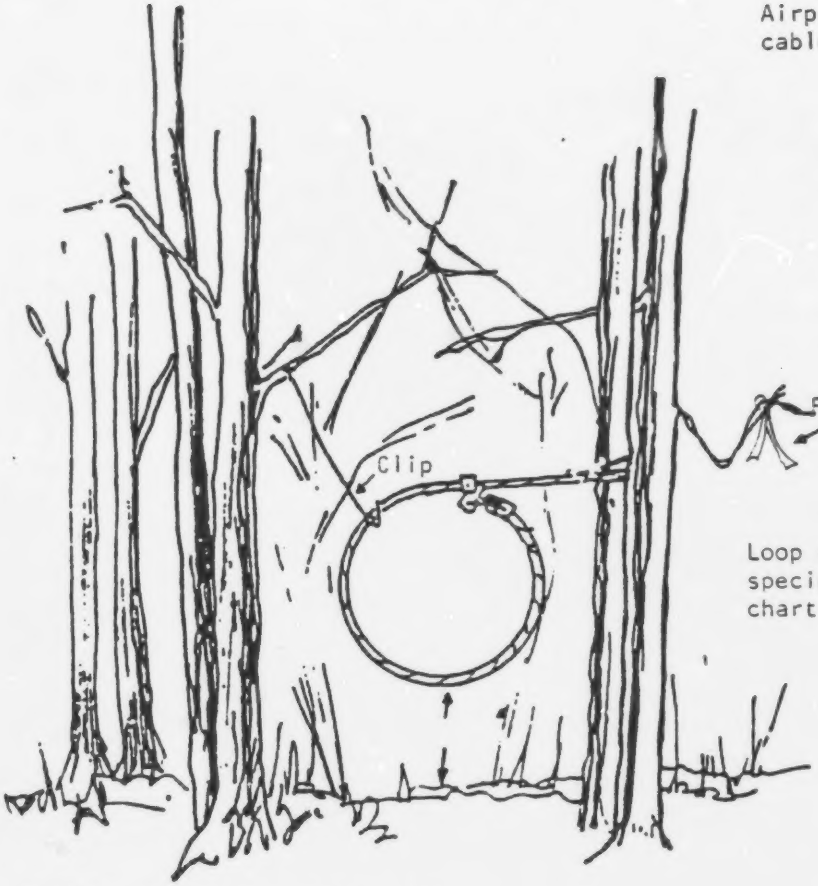
Bait inside pen. Also suitable for use away from a den.

TRAIL SNARE SET

LYNX,FOX,COYOTE AND WOLF

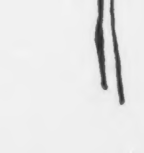

Close-up of Alberta Lock or Nor-Loc type of lock on snare

Airplane type cable



Loop size varies with species. See snare chart for proper sizes.

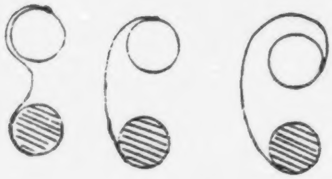
Height off ground varies with species. See snare chart for sizes.


Clip made of fine wire will pull off when snare moves

RECOMMENDED

SNARE POLE SET

SQUIRREL



The eye of the snare should be in the top 1/2 of the loop when set. Above are variations of snare configurations.

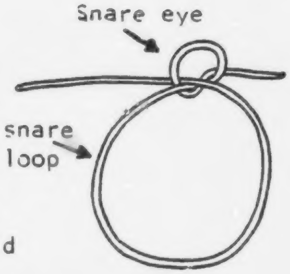
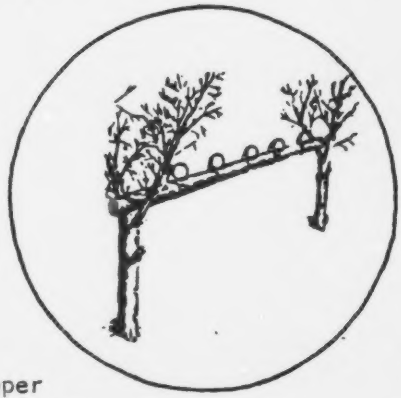
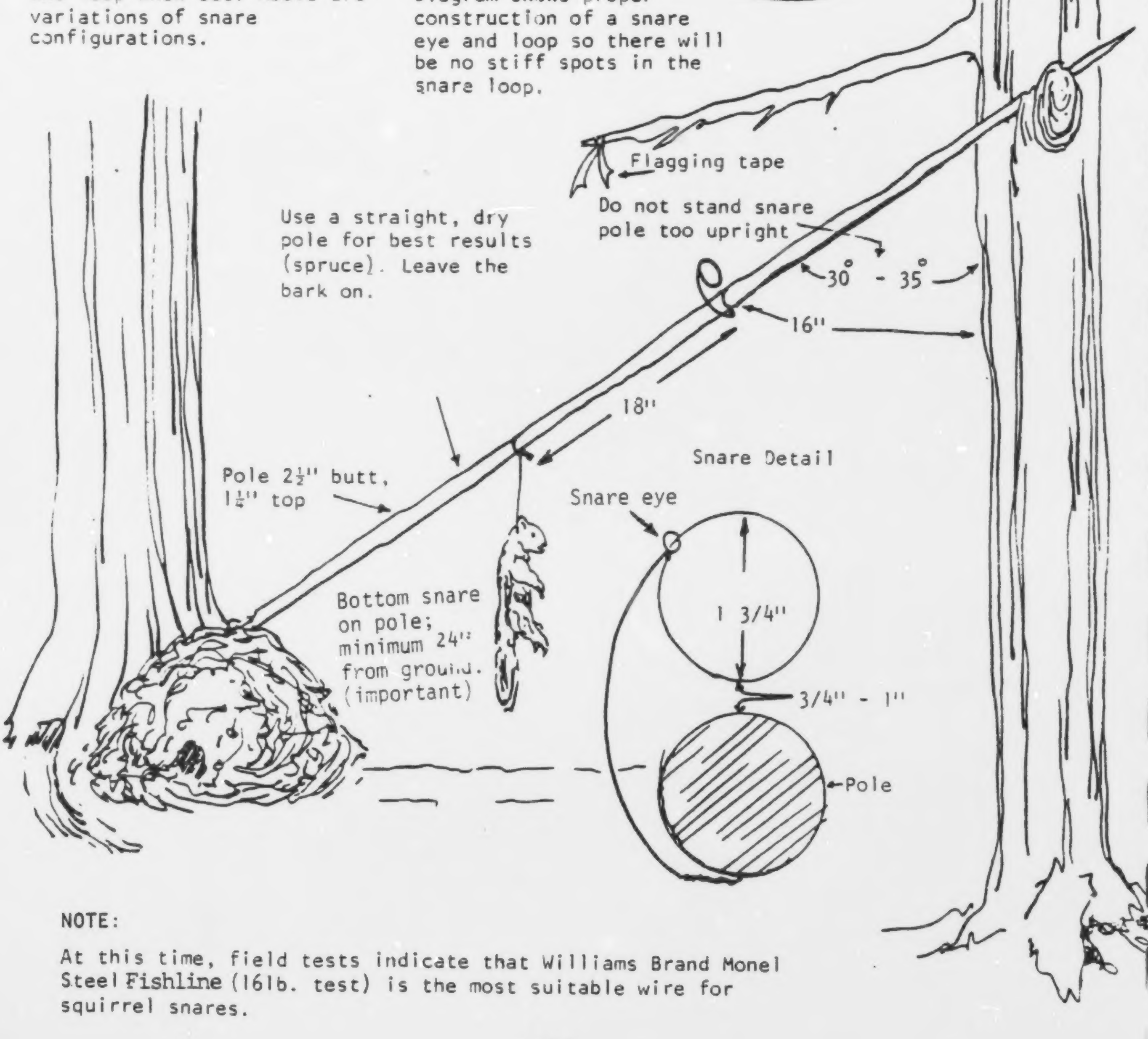

Snare eye
snare loop

Diagram shows proper construction of a snare eye and loop so there will be no stiff spots in the snare loop.




Flagging tape
30° - 35°
16"
18"
Pole 2½" butt, 1¼" top
Snare Detail
Snare eye
1 3/4"
3/4" - 1"
Pole

Do not stand snare pole too upright

Use a straight, dry pole for best results (spruce). Leave the bark on.

Bottom snare on pole; minimum 24" from ground. (important)

NOTE:

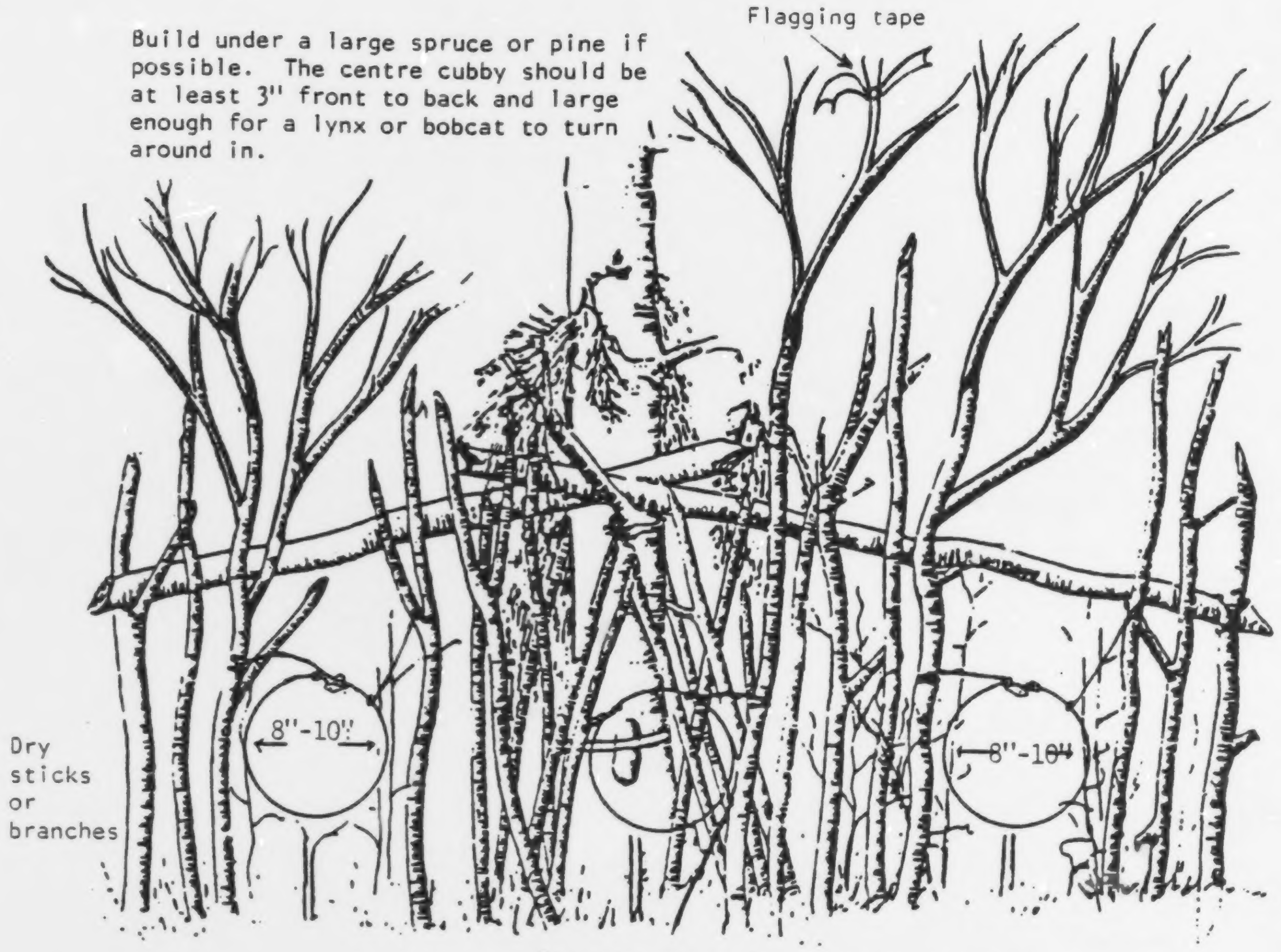
At this time, field tests indicate that Williams Brand Monel Steel Fishline (16lb. test) is the most suitable wire for squirrel snares.

RECOMMENDED 12 KILL SNARE **LAND SET**

CUBBY WITH WINGS SET

LYNX & BOBCAT

Build under a large spruce or pine if possible. The centre cubby should be at least 3" front to back and large enough for a lynx or bobcat to turn around in.

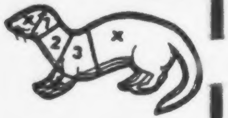

Flagging tape
8"-10"
8"-10"
Dry sticks or branches

Beaver meat or lynx lure on hay ball or rabbit foot.

NOTE:

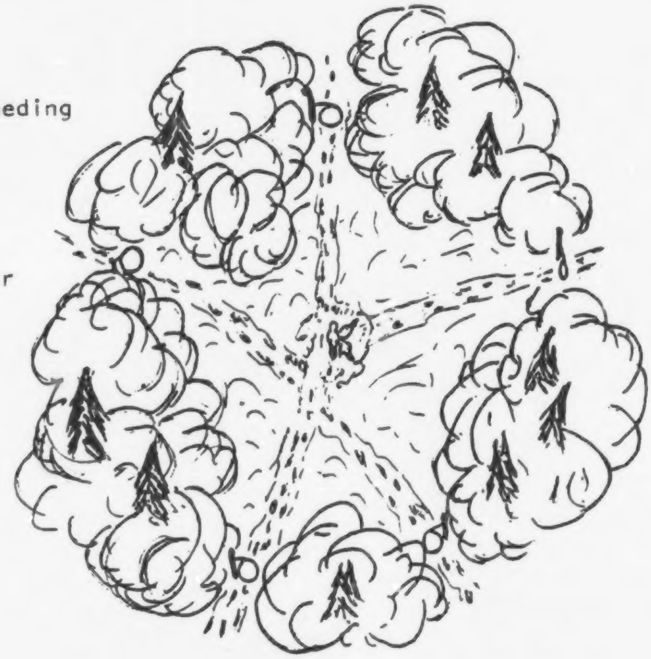
1. Set snares 12" off ground or packed snow.
2. Loop size is 8" - 10".
3. Use aircraft type cable with nor-lock or Alberta lock.
4. Fasten snares to a strong, dry anchor with baling wire.

BAIT STATION SET KILL SNARE / FOOT HOLD LAND SET



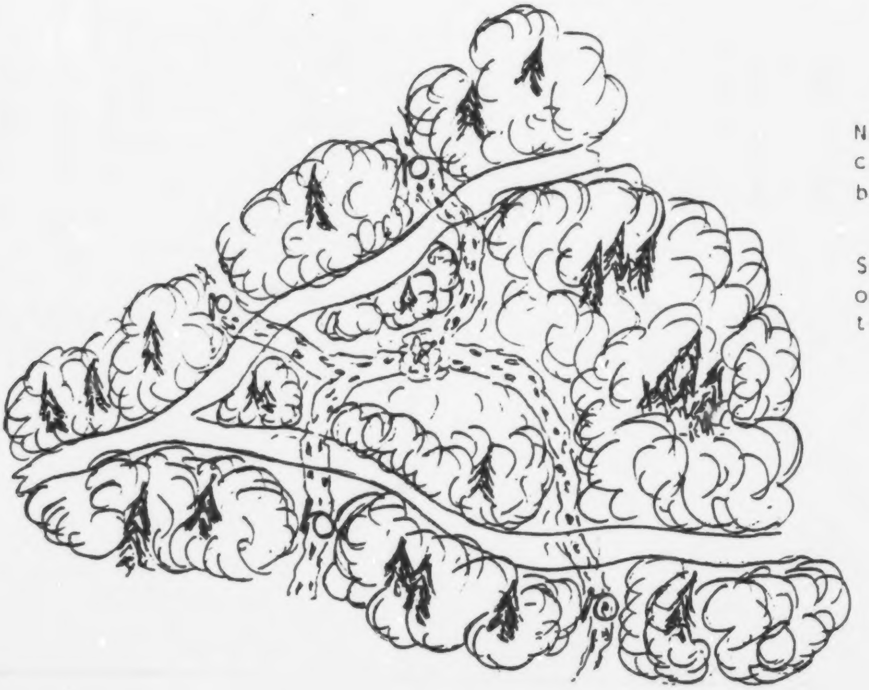
WOLF COYOTE FOX

Bait station



This type of set is designed to take advantage of the animal's feeding habits.

The bait station is the centre of an imaginary wagon wheel. The animal paths are the spokes and the outer area where snares or traps are set, is the rim and should be 75 yards or more from the bait station.



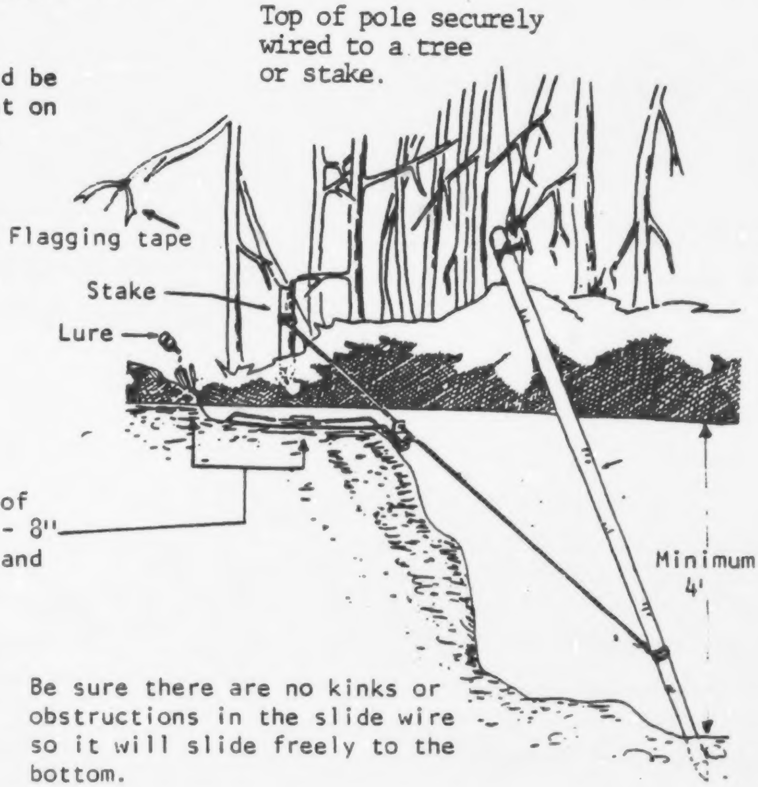
Natural land features can often assist in a good bait station location.

Snares or traps are located on the animal tracks coming to the bait.

ALTERNATIVE 14 FOOTHOLD DROWN SET **WATER ANIMAL SET**

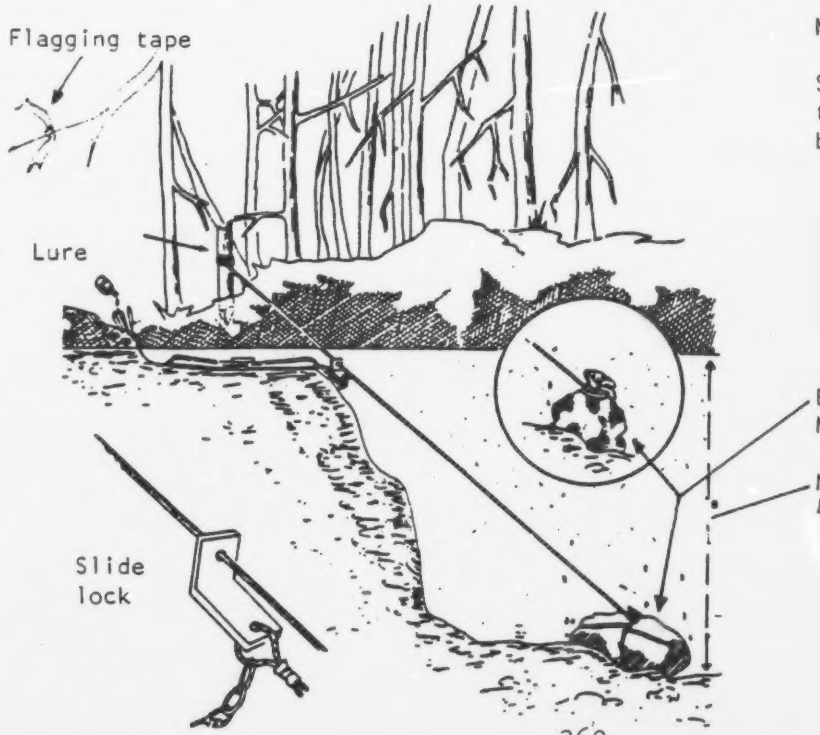
SLIDE WIRE SETS BEAVER AND MUSKRAT

A slide or drowning wire should be used on all Foot Hold traps set on shore for beaver and muskrats.


Top of pole securely wired to a tree or stake.
Flagging tape
Stake
Lure
Minimum 4'

Trap is placed under about 2" of water. Trap pan should be 6" - 8" away from the lure for beaver and 4" - 6" for muskrat.

Be sure there are no kinks or obstructions in the slide wire so it will slide freely to the bottom.


Flagging tape
Lure
Slide lock

Bag filled with rocks, Minimum 30 lbs.

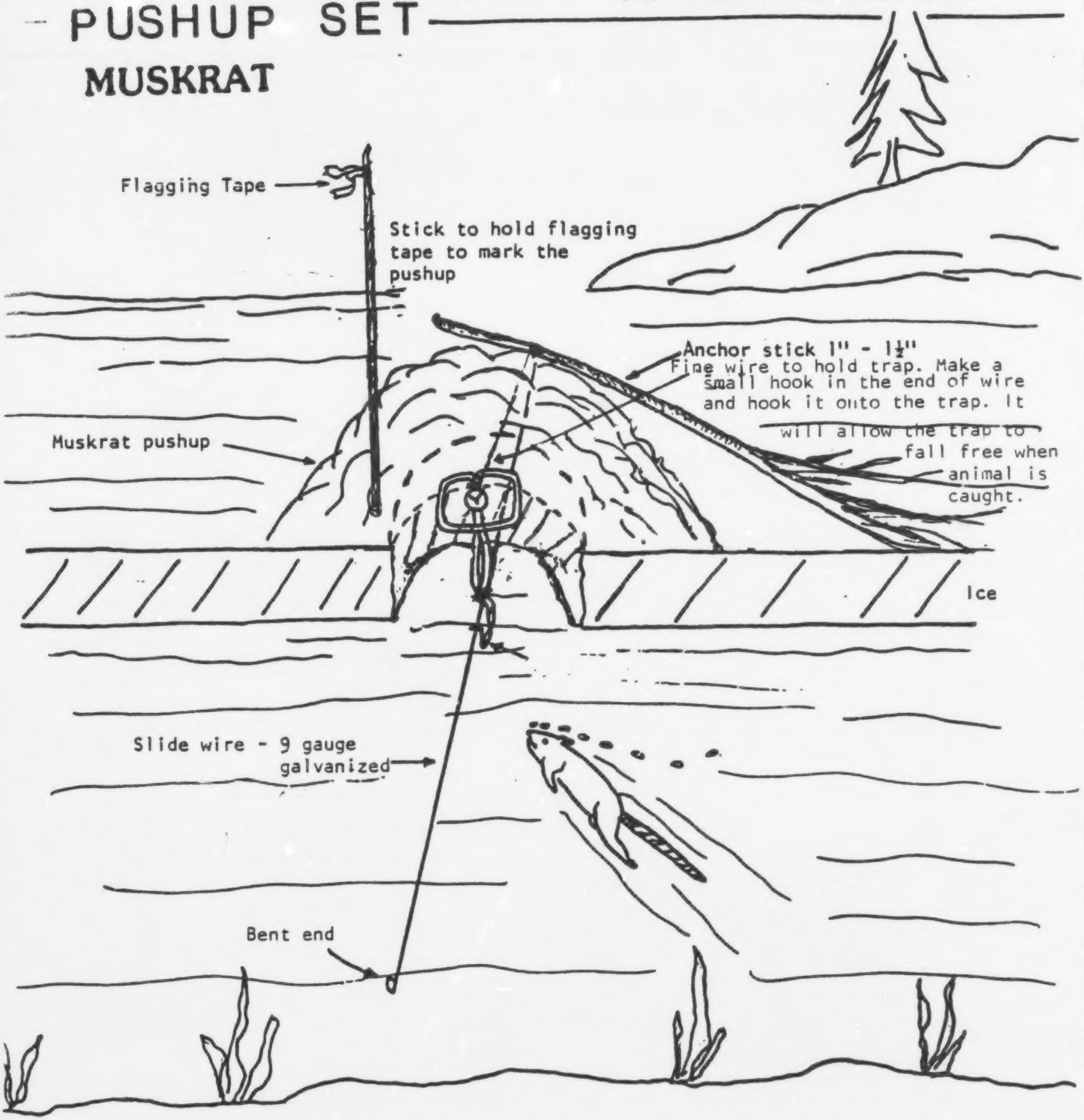
Minimum depth of water 4'

NOTE:

Slide lock may be attached to chain on trap with baling wire.

PUSHUP SET

MUSKRAT


Flagging Tape
Stick to hold flagging tape to mark the pushup
Anchor stick 1" - 1½"
Fine wire to hold trap. Make a small hook in the end of wire and hook it onto the trap. It will allow the trap to fall free when animal is caught.
Muskrat pushup
Ice
Slide wire - 9 gauge galvanized
Bent end

NOTE:

This set should be made only in warmer weather to avoid freezing the pushup.

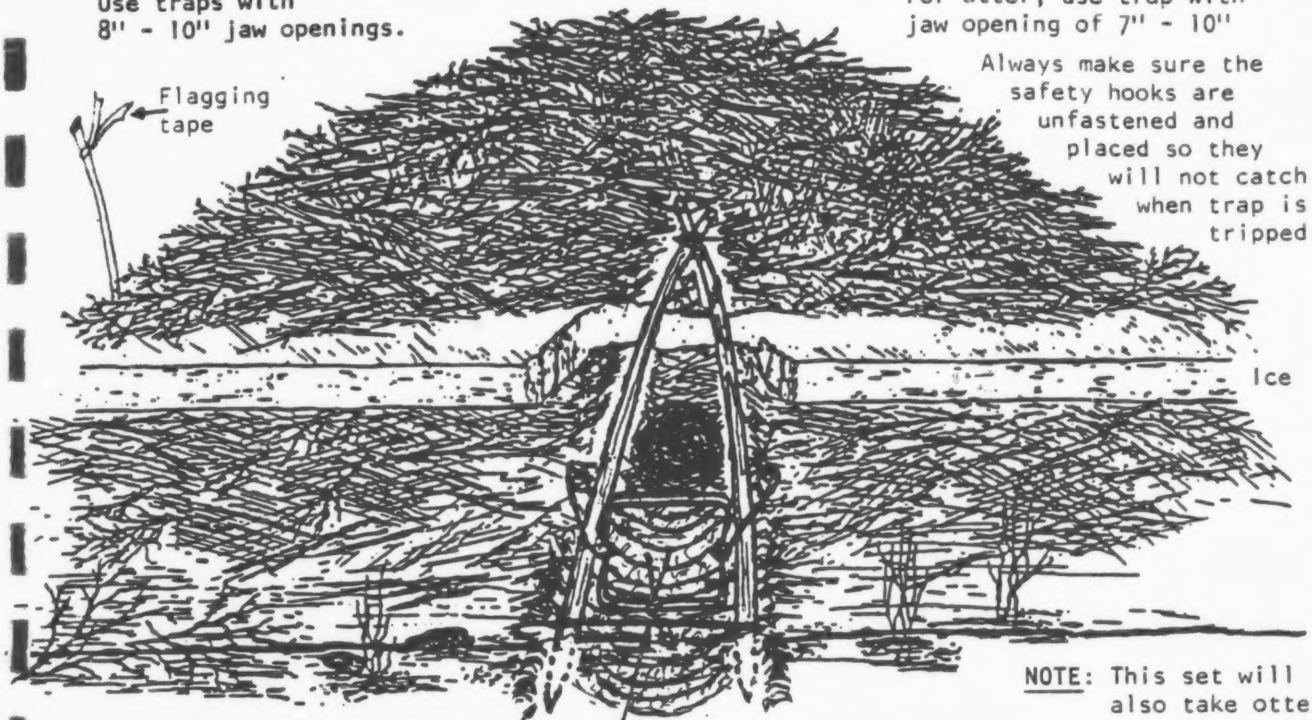
RUN SET

BEAVER AND OTTER

For beaver
Use traps with
8" - 10" jaw openings.

For otter, use trap with jaw opening of 7" - 10"

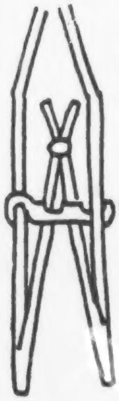
Always make sure the safety hooks are unfastened and placed so they will not catch when trap is tripped.



NOTE: This set will also take otter

Place stakes through trap springs

Wire holding trap stakes together



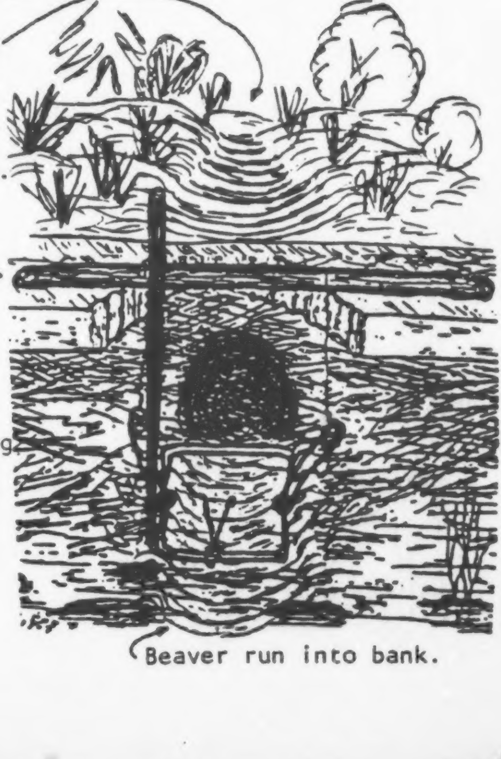
Detail of trap dog, use end notch with 10" jaw opening traps. Trap should be set with trigger on the jaw that the animal is likely to approach from.

When using a trap with 8" jaw opening, it should be set with the trigger on the jaw away from the animal's approach. Beaver will usually be coming out of the lodge.

Hollow mark near the shoreline of pond or creek often indicates a beaver run under the hollow.

Anchor pole with hanging wires to trap

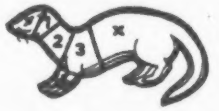
Small standing pole through trap spring to keep trap from turning



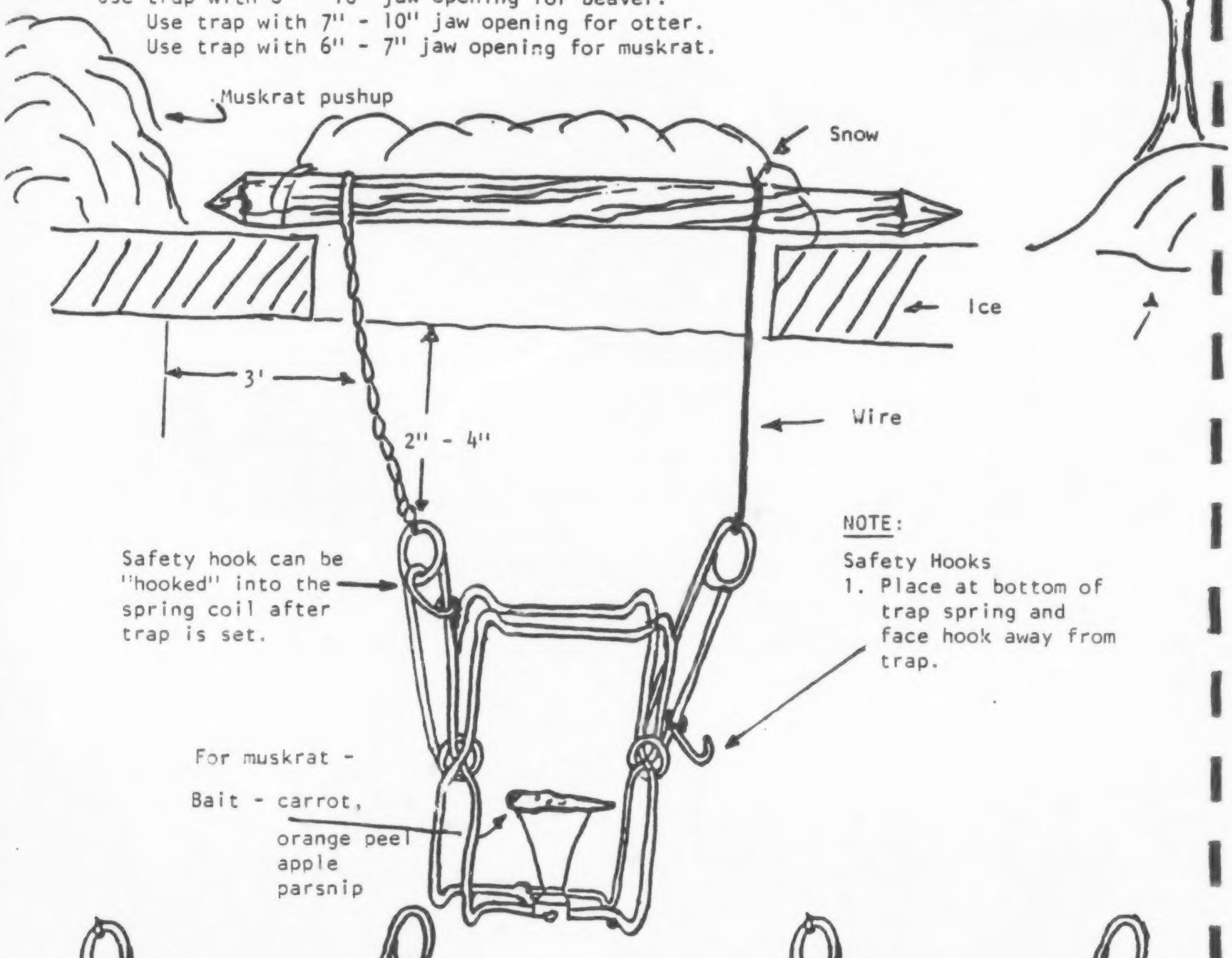
Beaver run into bank.

BAIT SET

MUSKRAT, BEAVER AND OTTER



Use trap with 8" - 10" jaw opening for beaver.
Use trap with 7" - 10" jaw opening for otter.
Use trap with 6" - 7" jaw opening for muskrat.



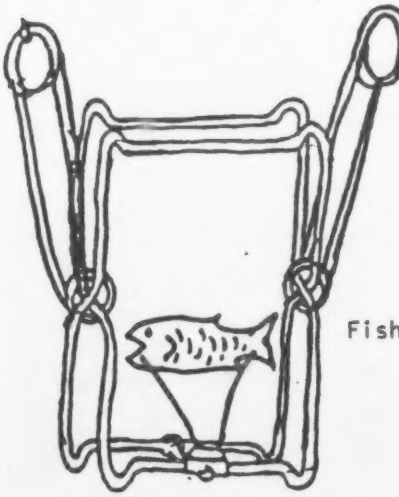
Safety hook can be "hooked" into the spring coil after trap is set.

NOTE:

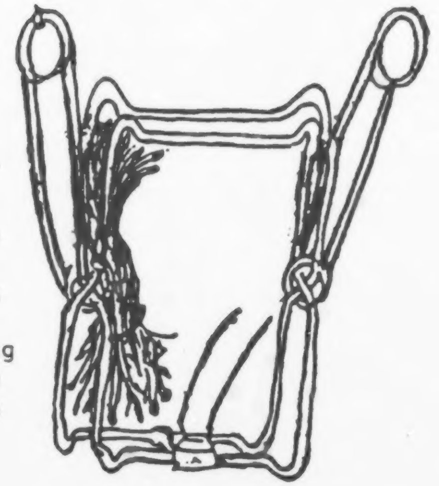
Safety Hooks
1. Place at bottom of trap spring and face hook away from trap.

For muskrat -

Bait - carrot, orange peel apple parsnip



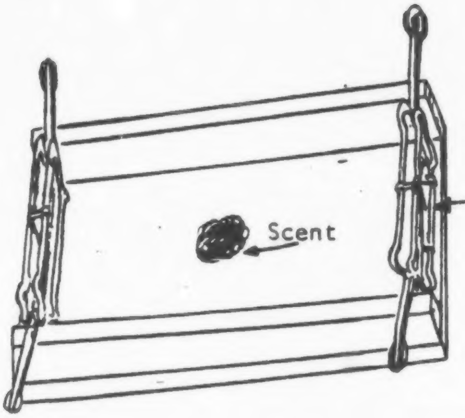
Fish for otter



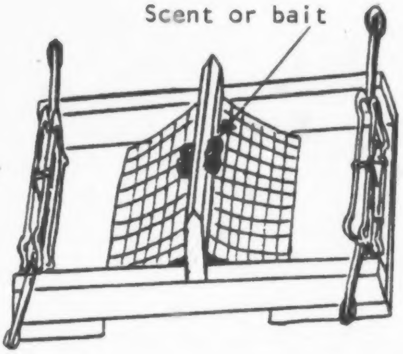
For beaver-

Tie small green twigs or green aspen stick inside the trap opening on opposite jaws of the trap

FLOAT SET
MUSKRAT

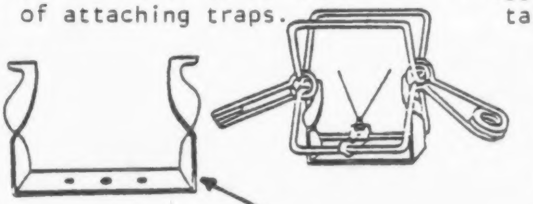

Scent
Trap trigger should be baited.

Float made from 2" plank, 8" wide and 2' long, with piece of 1 X 4 nailed on each side. 2 ft. long

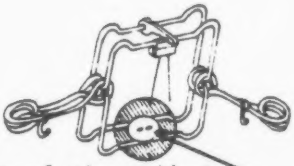

Scent or bait

Float made from 2 pieces 2" X 4" 2 ft. long
A piece of 1" X 10" - 10" long nailed across the 2 X 4 at each end. Higher centre board in the middle crosswise, piece of wire mesh to cover the centre opening.

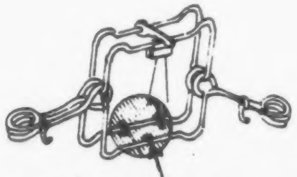
Below are three methods of attaching traps.



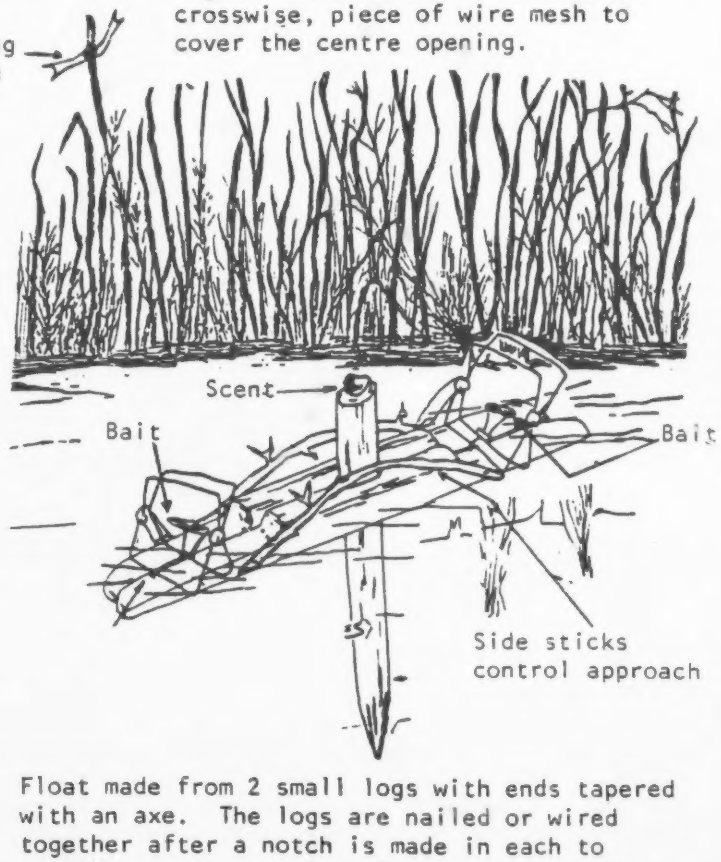
Grawbarger trap holder



Piece of tin nailed to float as a trap holder.



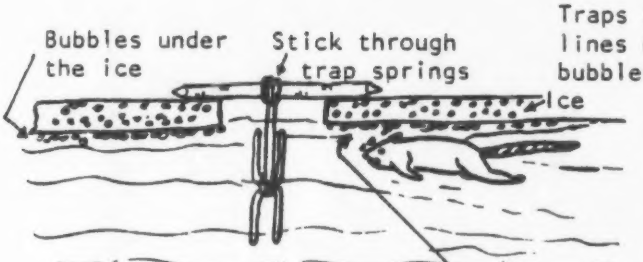
Three or 4 nails driven into float and bent outward to act as a trap holder.

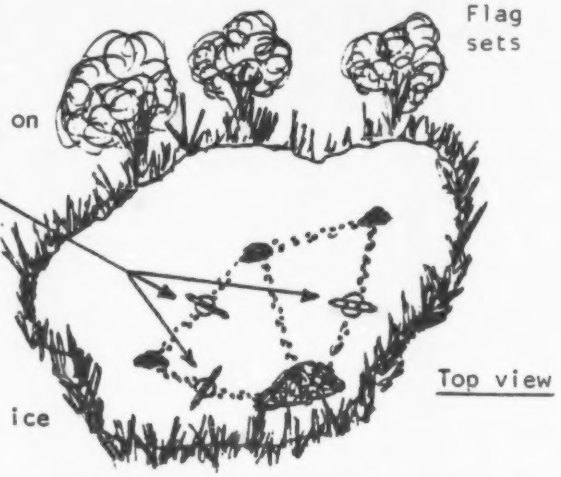

Flagging tape
Scent
Bait
Bait
Side sticks control approach

Float made from 2 small logs with ends tapered with an axe. The logs are nailed or wired together after a notch is made in each to put the centre post in. Post should be loose so float can move up and down.

UNDER ICE SET

MUSKRAT

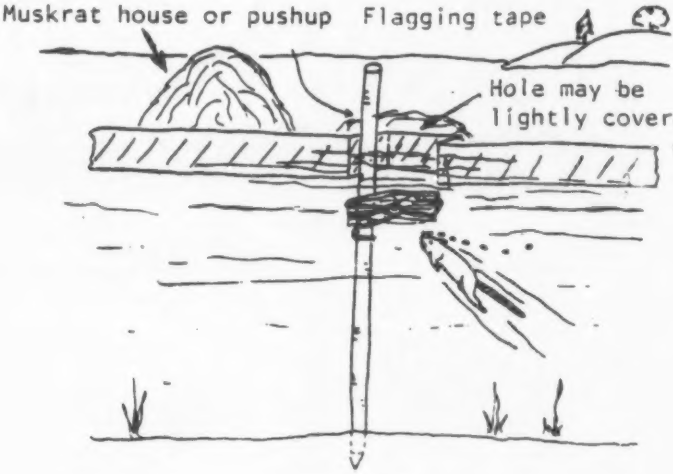

Bubbles under the ice
Stick through trap springs
Ice
Bubbles under ice

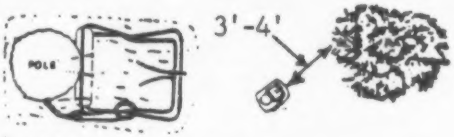

Flag sets
Traps set on lines of bubbles
Top view

This set mainly used shortly after freezeup, when ice is just thick enough to walk on, before snowfall. The trap is set on the muskrat runs shown by the paths of bubbles under the ice. It is set directly across the path with the top jaw just under the ice and the trigger on the bottom jaw. The muskrat just swims through it, following his normal run.

Muskrat runs are easily seen by the lines of bubbles they leave under the ice in their travels.

Useful set in the fall when muskrats are active


Muskrat house or pushup
Flagging tape
Hole may be lightly covered with snow.



Top view - shows position of trap and pole, and the trap set in relation to the house or pushup.

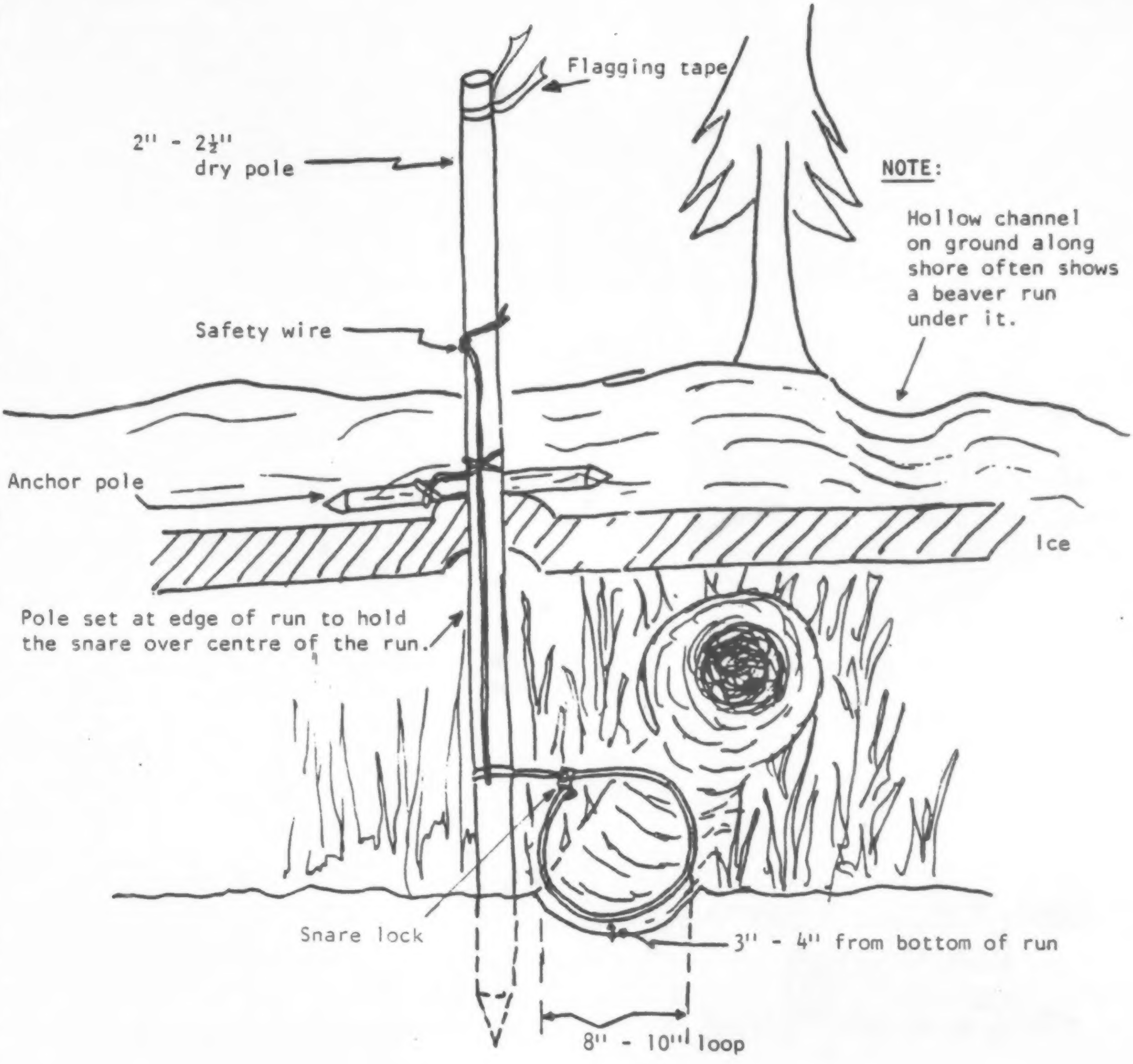
Side view

This set mainly used in late season when weather is warming up. A hole is made 3' - 4' from muskrat house or pushup. The trap is attached to a pole and set flat in the hole 2" - 4" below the ice. The muskrat will see the hole and will swim up toward it, passing through the trap. A light covering of snow may be placed over the hole as it will allow light to pass through (muskrats seem attracted by this light).

ALTERNATIVE

SNARE POLE SET

BEAVER


Flagging tape
2" - 2½" dry pole
Safety wire
Anchor pole
Ice
Pole set at edge of run to hold the snare over centre of the run.
Snare lock
3" - 4" from bottom of run
8" - 10" loop

NOTE:

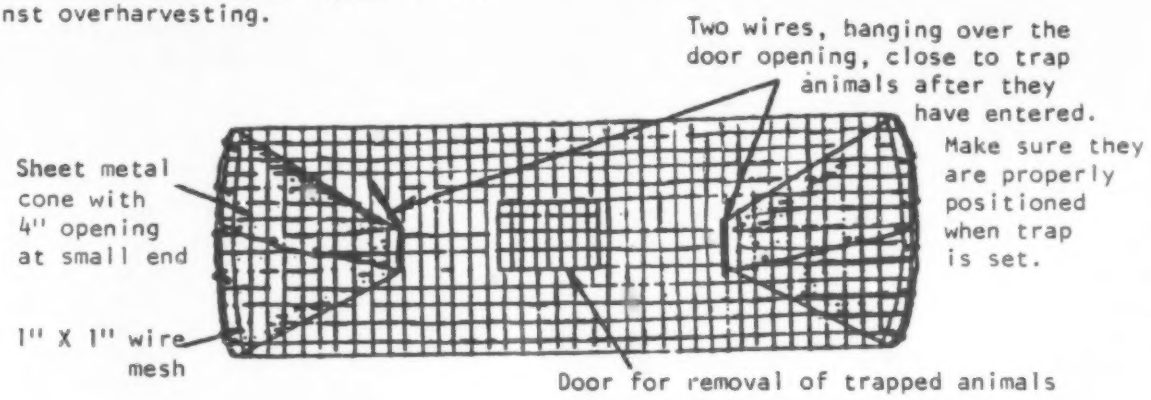
Hollow channel on ground along shore often shows a beaver run under it.

SUBMARINE TRAP

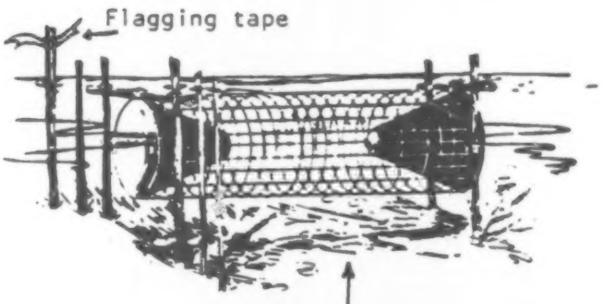
MUSKRAT AND MINK

NOTE: Since one trap can make multiple catches during one night, traps should be left in one location for no more than three nights. This guards against overharvesting.

NOTE: Always be sure trap is completely under water and is secured there.


Sheet metal cone with 4" opening at small end
1" X 1" wire mesh
Door for removal of trapped animals

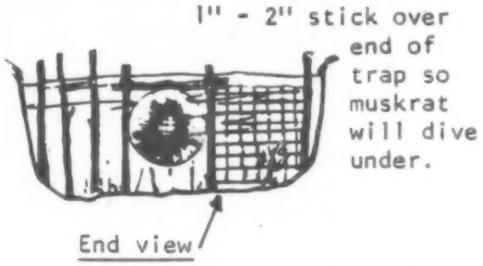
Two wires, hanging over the door opening, close to trap animals after they have entered. Make sure they are properly positioned when trap is set.



Side view

Trap is supported and held under water by stakes driven into the ground.

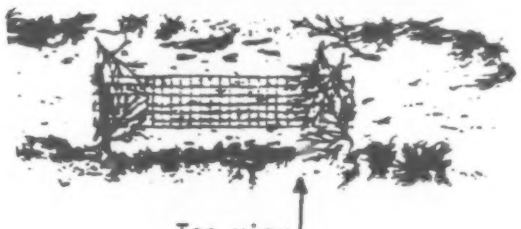
Do not use in areas where water levels fluctuate rapidly.



1" - 2" stick over end of trap so muskrat will dive under.

End view

Showing trap set in a wide ditch that has been blocked off to guide muskrat into trap. It is held at least 2" under water by placing a stick on top and fastening it to stakes driven into the ground.



Top view

Traps are generally laid in the muskrat run and held by placing branches on top near the ends of the trap. (Be sure the complete trap is under water, at least 2").

NOTE:

Submarine traps are often set under ice in runs going to the shore of ponds or lakes. Also in runs going to pushups, they may be baited with pieces of apple, carrot, parsnip and even pieces of meat.

DETAILS OF END FUNNEL CONSTRUCTION

FOR SUBMARINE TRAP

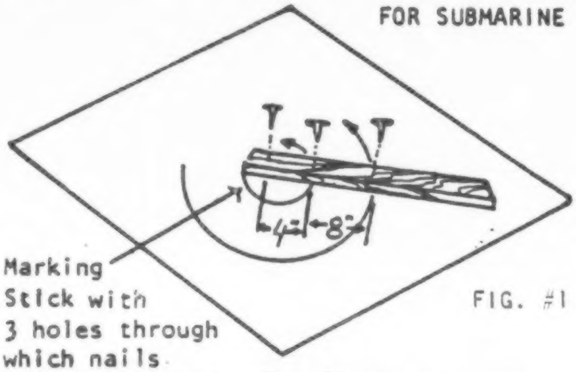
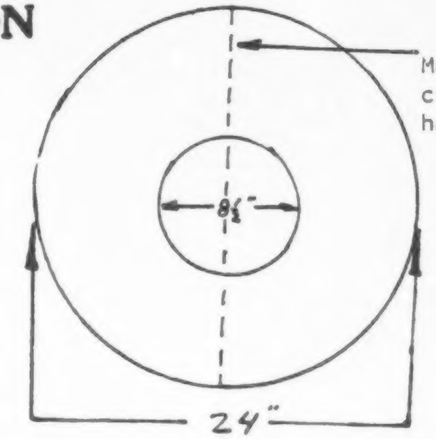


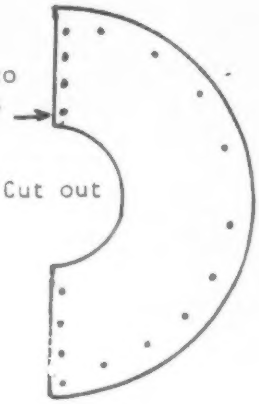
FIG. #1

Marking Stick with 3 holes through which nails can be inserted. The first nail near left end of marking stick is driven through the tin to act as the centre pivot.
The second nail is inserted through the hole in the marker stick 4" from the first and pressure applied against the tin, as the marker is turned, the nail will scratch a circle on the tin indicating the 8" circle to be cut out of centre (see figure 2).
Then insert the third nail through the hole in the marker stick in the hole 8" past nail #2 and make another circle on the tin. This will indicate the 24" circle of tin to be cut out (see fig. 2).



Mark to cut in half

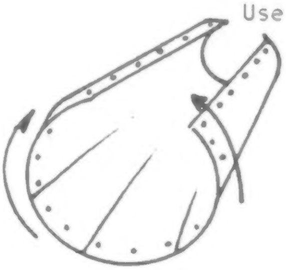
FIG. #2



Use nails to punch holes

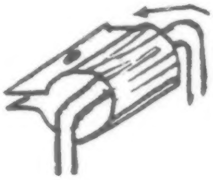
FIG. #3

FIG. #4



Use rivets or small bolts to fasten together

FIG. #5



One way door hinge strap

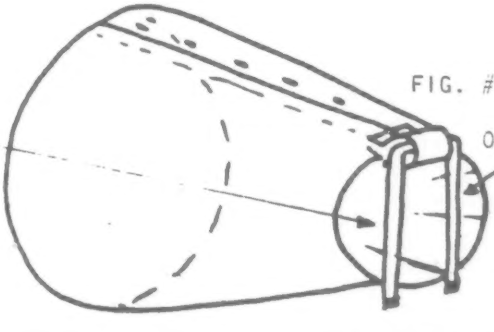
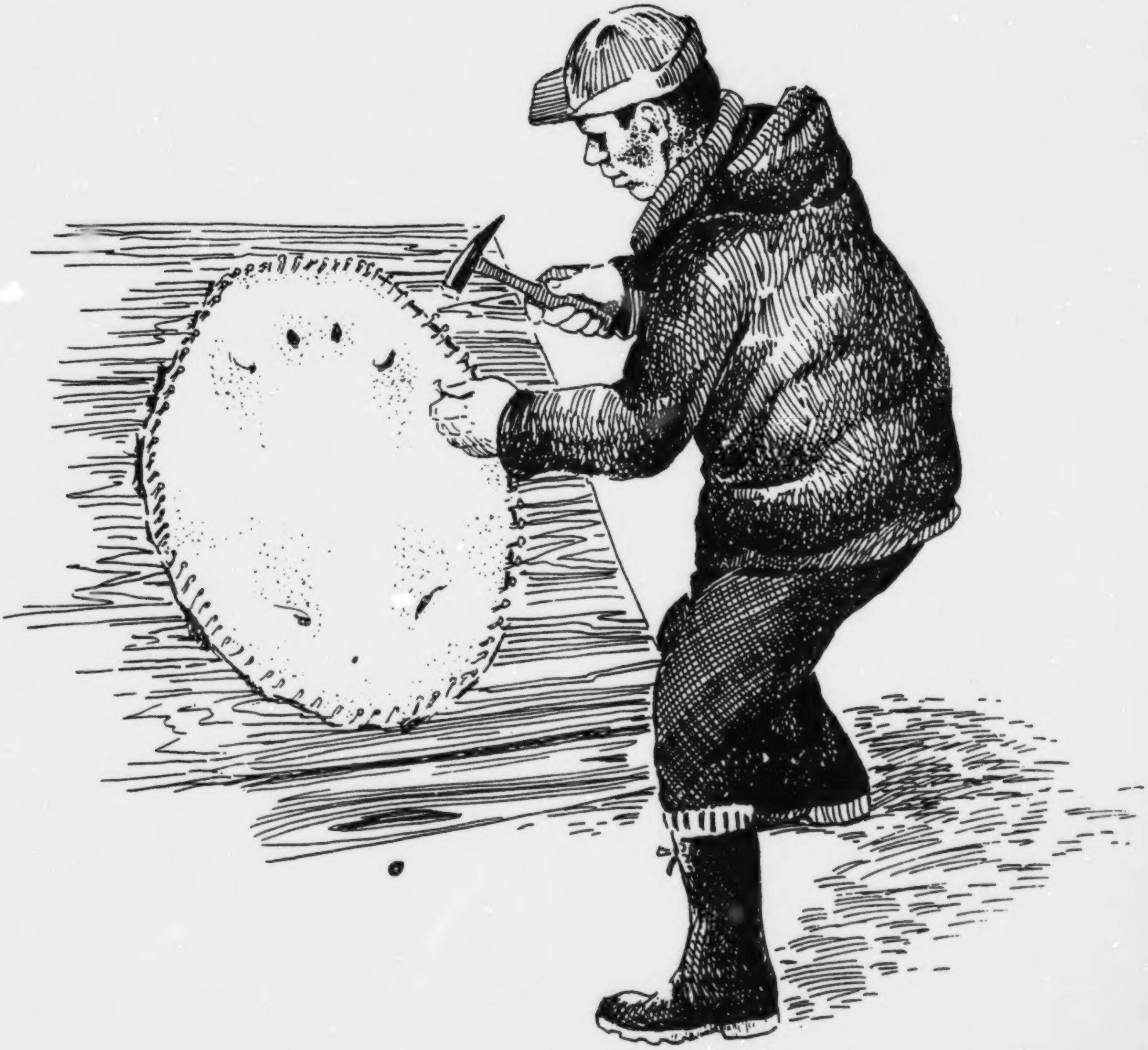


FIG. #6

One way door wires in position on the funnel. Hinge must always be at top when trap is set.

Opening is 4" in diameter

Fur Handling

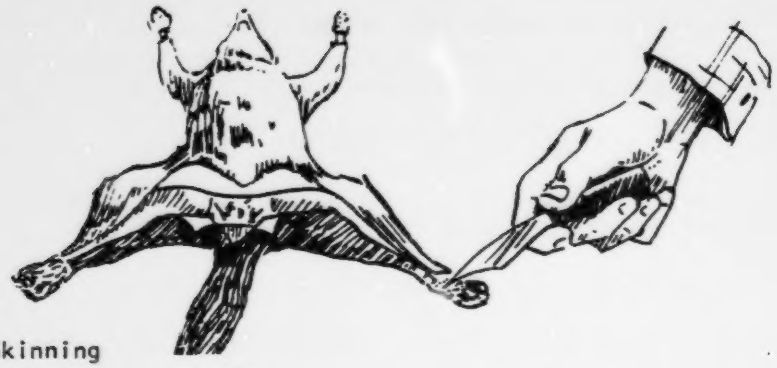


Lesson Objectives

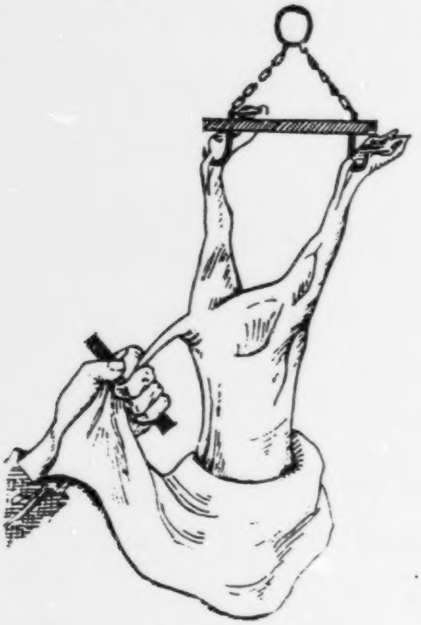
To provide the student with:

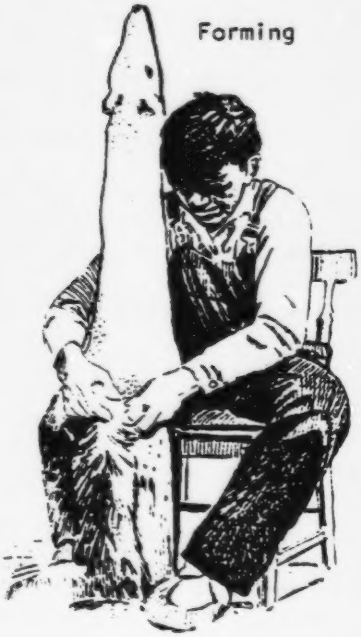
1. Methods to properly handle the common pelts found in Alberta for Marketing.

Fur Handling

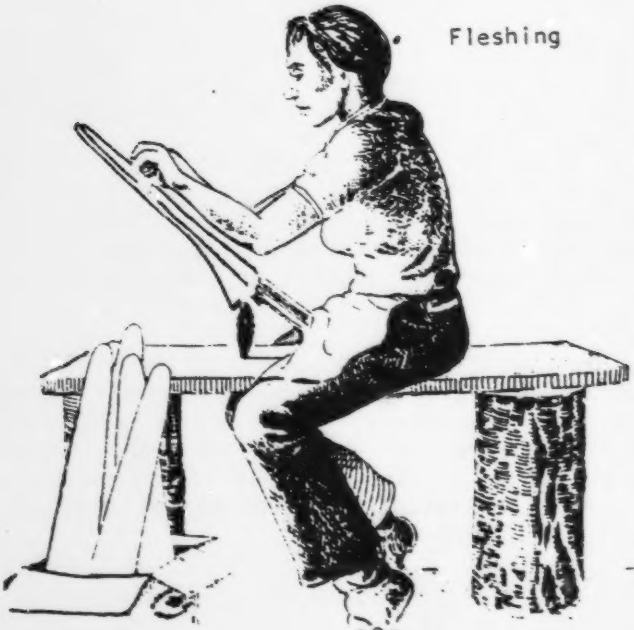


Skinning

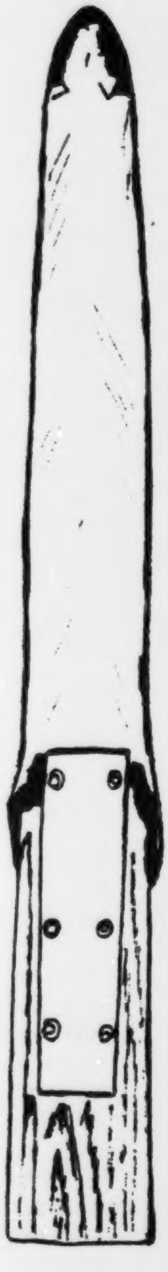




Forming



Fleshing



Drying

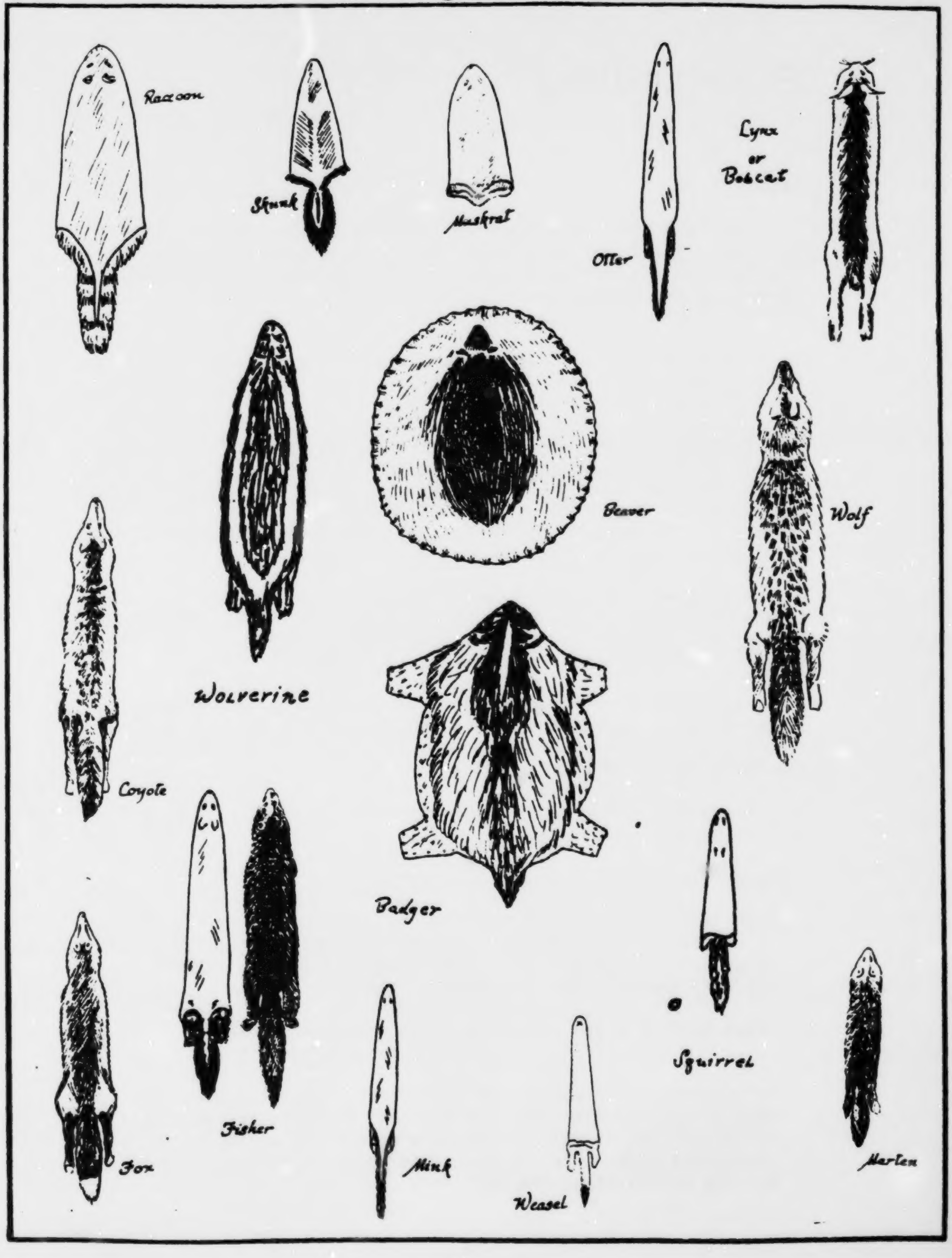
SKINNING AND MARKETING INFORMATION

Bear	Skin square or open like a beef (leave claws on)
Beaver	Skin and form open and flat (sew all leg holes)
Wolf	Skin and form cased, fur out (leave claws on if pelt is of good quality suitable for a rug)
Wolverine	Skin and form cased, fur out (leave claws on)
Coyote	Skin and form cased, fur out (**do not** leave claws on)
Lynx	Skin and form cased, fur out (**do not** leave claws on)
Bob cat	Skin and form cased, fur out (**do not** leave claws on)
Fox	Skin and form cased, fur out (**do not** leave claws on)
Fisher	Skin and form cased, fur out (**do not** leave claws on) *If fur is being shipped to Ontario Trappers Association, Fur Sales Service, they prefer Fisher to be handled fur in
Marten	Skin and form cased, fur out (**do not** leave claws on)
Mink	Skin and form cased, fur in (**do not** leave claws on)
Weasel	Skin and form cased, fur in (**do not** leave claws on)
Squirrel	Skin and form cased, fur in (**do not** leave claws on)
Otter	Skin and form cased, fur in (**do not** leave claws on)
Muskrat	Skin and form cased, fur in (**do not** leave claws on)
Badger	Skin square or open like a beef (**do not** leave claws on)
Raccoon	Skin and form cased - fur in (**do not** leave claws on)
Skunk	Skin and form cased - fur in (**do not** leave claws on)

The tails should be open on all pelts, except squirrel and weasel, to allow for proper drying and prevention of hair slip. (Beaver tails are **not** left on the pelt). All pelts should be clean, free of excess fat and flesh and all unwanted holes or cuts should be sewn carefully prior to drying. Furs should be carefully brushed or combed prior to selling or shipping

Alberta Energy and Natural Resources, Fish and Wildlife Division, supplies fur form patterns for beaver, mink, marten, muskrat, weasel and squirrel. These are available through Fish and Wildlife offices in Alberta as well as various fur receiving depots and trappers' supply outlets. They are free of charge and are supplied to assist and encourage trappers to prepare a more consistent pelt for market and avoid waste.

Showing proper method of prepairing raw pelts for the fur trade


Racoon
Skunk
Muskrat
Otter
Lynx
or
Bobcat
Wolverine
Beaver
Wolf
Coyote
Badger
Fisher
Fox
Mink
Weasel
Squirrel
Marten

Fur Handling

INTRODUCTION

The importance of proper fur handling can hardly be overstressed. The proper handling of pelts is necessary to ensure the highest possible monetary return to the trapper. The monetary rewards gained through well handled pelts may make the difference between staying in the business or not.

Although a trapper cannot improve upon the basic quality of a fur pelt as produced by nature, he can reduce its value or render it worthless through poor fur handling.

Considering the time and effort expended to obtain a pelt, it is well worth the effort required to do a good job of handling it. (Speed may come with practice, but quality workmanship is more important). To not handle a pelt properly is a waste of the trapper's time and efforts, a loss of revenue to the trapper and the industry and the waste of an animal's life.

A trapper has a moral and professional responsibility when taking the life of a fur bearing animal to help maintain a livelihood. He owes that animal the respect of properly handling the pelt so as to obtain the true market value.

Keep in mind that consistently well handled pelts enhance the image of the trapper and maintain the markets for these products.

The Three Styles of Pelt Handling

There are three basic styles or forms of handling pelts for the fur market. They are as follows:

1. **Open Pelt** - beaver, badger and bear

   With this style, the pelt is split lengthwise down the centre of the belly and spread out flat or open to dry. Buyers expect these pelts to be prepared in this way and want to be able to see both the skin and fur sides of the pelt.

2. **Cased pelt (Fur in)** - mink, muskrat, squirrel, weasel, otter, raccoon, skunk (fisher*)

   In skinning an animal in the cased (fur in) style, a cut is made across the hind legs and vent and the pelt is peeled off the animal inside out, in the same manner you would use in removing a sock. The pelt is dried and sold as is, without turning or splitting the pelt open.

Buyers want the fur inside to protect these furs from grease, singing or other reasons. This is the traditional style for these pelts and buyers become suspicious if they are handled differently.

3. **Cased Pelt (Fur Out)** - wolf, coyote, fox, lynx, bobcat, marten, wolverine (fisher*)

The cased pelt (fur out), is skinned in the same manner as the cased pelt (fur in). The only difference is that the pelt is put on the forming board, fur side in, and is partially dried. The pelt is then removed from the board and turned fur side out, after which it is put back on the form to complete the drying process. The pelt is traditionally marketed fur out. The animals prepared in this way generally have long belly fur which the buyer wants to carefully examine for quality and colour or for rubbing and other damage.

*Fisher - may be handled as either a cased pelt (fur in) or a cased pelt (fur out) depending only upon where it is to be marketed.

- O.T.A. Fur Sales Service prefer fisher handled fur in
- Other fur sales agencies prefer fisher handled fur out

It is important for trappers to strive for consistency in the style and manner of handling. Pelts which are not done to pattern, stick out like a sore thumb at a fur auction, are a nuisance for the buyers to handle and generally, bring a much lower price.

Precautions in Fur Preparations

There are a number of diseases and parasites found in fur bearing animals whch are highly infectious to man and are considered dangerous, such as:

- rabies
- tape worm
- tularemia
- listeriosis
- pseudotuberculosis

*For further details on identifying these diseases, refer to the section on trapper health in this manual.

Most disease organisms found in fur bearing animals enter the body through open cuts, sores or blisters; they may also enter through the mouth, nose or eyes (eg: from the spatter of blood or saliva from an infected animal).

Some diseases, such as tularemia, may penetrate directly through unbroken skin.

Because of the danger, a few simple precautions should be taken when skinning or handling fur bearing animals or fresh pelts, that is:

- wear disposable rubber gloves
- cover open cuts and other sores on the hands and exposed skin before starting to work on an animal
- after you are finished working on an animal, wash thoroughly in a warm soapy water (if desired, add a mild disinfectant)
- where certain diseases are very common, it may be worth asking your doctor about receiving innoculations or some other manner of protection.

Using the Fur Handling Guide in this Manual

This manual contains a step by step guide on fur handling. The guide is in point form for easy reference and gives details on the handling of furs from the time the animal is removed from the trap to when it is ready for marketing.

There are also drawings which illustrate the basic processes involved in preparing each style of pelt and which show what the finished pelt should look like for each species of fur bearer. The guide is divided into four main sections:

1. **Common Steps of Fur Handling**

   - this section outlines the handling processes that apply to all furs and gives details on proper procedure.

2. **Handling Open Pelts**

   - this section gives details on how to handle open pelts, using the beaver as an example - other open pelts follow the same pattern except for the differences noted for each species.

3. **Handling Cased Pelts (Fur In)**

   - this section describes how to handle cased pelts (fur in), using the mink as an example - other cased "in" furs are handled in the same manner as for the mink except for the differences noted under each species.

4. **Handling Cased Pelts (Fur Out)**

   - this section describes how to handle cased pelts (fur out), using the coyote as an example - other pelts done "out" follow the same pattern as for the coyote except for the differences listed under each species.

The details of pelt handling have countless possible variations; these do not matter, provided the end product is of equal quality and is consistent with the standard form desired by the market.

The guide shows only one acceptable method, because space does not permit every known variation to be detailed. The "clean skinning method" (ie: removing as much fat and flesh as possible during the skinning), is promoted as it is generally the fastest and most efficient method to use. However, it is recognized that, in a situation where a beaver carcass would have to be transported a long distance by foot, it may have to be rough-skinned (ie: leaving most of the fat and considerable flesh attached to the pelt during the skinning process) in the field and the pelt well fleshed later. Most other fur bearers are normally rough skinned and fleshed later.

Although students will receive some instruction in the handling of furs during the course, most will require further practise at home to perfect their technique. The student can use the fur handling guide as a reference to assist him in developing consistent and high quality fur handling practises.

FUR HANDLING GUIDE

Common Steps to Fur Handling

1. Pre Skinning Care

(a) Removal From Trap

- If the animal is frozen, care must be taken to prevent damage to the pelt (trap may have to be removed after thawing)

- In freezing weather, if the animal is wet, the trap should be removed immediately and the fur dried as much as possible.

(b) Transporting the Carcass

- Be sure fur is protected by enclosing the carcass in a sack or tarp or by placing some form of padding around it to prevent rubbing or freezing against a cold wet surface or another carcass.

- Be sure carcass is sufficiently thawed prior to skinning.

- Fur should be dry, on all pelts that are handled cased and fur in, before they are skinned and put on the drying boards.

2. Skinning

Animals should be skinned as soon as possible after capture. If this is not done, the animal should be frozen. However, it should not be kept frozen for a prolonged period of time as freezing tends to dehydrate the pelt. Once an animal is thawed, it should not be refrozen.

3. Fleshing

4. Forming and Turning

5. Finishing

(a) Cleaning

Wash and rinse, use warm water and dish soap or shampoo (anything you would use on your own hair), to remove any blood or other foreign material. Then rinse in warm water to remove any soap film or dirt (clean fur is very important - if fur is not clean, it can even damage other fur during shipment).

(b) Sewing

Use a cutting edge, suture needle (available from your veterinarian), or a three-sided glovers needle, fine, strong thread and a "lock type" stitch when sewing most pelts.

(c) Drying

Dry in a moderately warm (55 - 65 degrees F) location, away from direct heat.

6. Storage

Pelts should be stored in a cool dry place.

Open pelts should be piled flat, leather to leather and fur to fur to keep oil off the fur. A piece of plywood should be placed on top, and weighted down if necessary, to prevent the pelts from rolling up (ie: a beaver forming board is ideal for beaver and badger.

It is preferable to hang other pelts by the nose to allow air circulation.

The storage area should be protected against vermin such as mice and insects.

Handling Open Pelts

Type animal - "Beaver"

1. Preparation

   Brush or comb the fur to remove any burrs and dirt.

2. Skinning - Clean Skinning Method

   (a) Cut feet off at first joint.

   (b) Cut around the tail or cut it off where fur and bare tail meet.

   (c) Place beaver on it's back and cut along it's belly in a straight line from centre of lower lip to centre of tail (careful not to cut into castor at the anus).

   (d) Peel back from this centre line, along one side and cut it away from the carcass. Keep the pelt snug to prevent cutting it. Gradually turn the body and keep skinning downward along the side to about the centre of the back. Skin out the front and back legs and the eye and cut off the ear close to the skull as you go.

   (e) Turn the carcass end for end and repeat the process on the other side, completely detaching the pelt from the carcass.

   (f) Set the pelt aside and carefully remove the castors and oil glands from the carcass. Roll the open end of the castors shut and hang them over a 1/2" - 1" stick to dry. They should be dried for a day or two until they are a leathery texture (not too dry). Store in a cool, dry place.

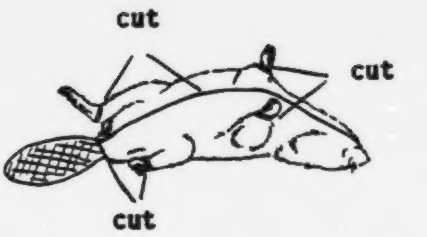
3. Fleshing and Forming

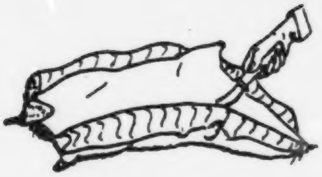
   (a) Flesh 2" around the outer perimeter of the pelt.

   (b) Place pelt flat on forming board, fur side down.

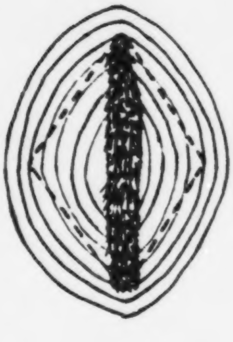
   (c) Assess the size of the pelt. Then place one nail in nose and tail at the centre line on the board on the correct size line. Place one nail on each side at the other centre line. Now place one more nail half way between each of the first four nails on the same pattern line. Nails should be spaced 3/4" apart and about 1/8" from the edge all along the perimeter of the pelt. After placing the first eight nails, make sure the pelt is the correct size on the pattern or make the necessary corrections.

Handling Open Pelts - the Beaver

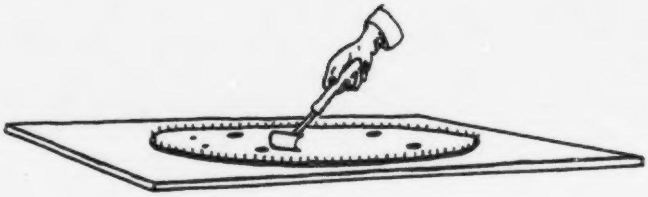




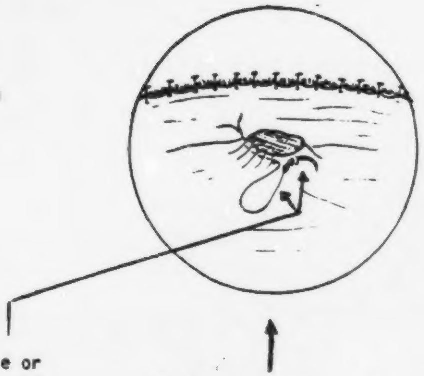
skinning



Sizing

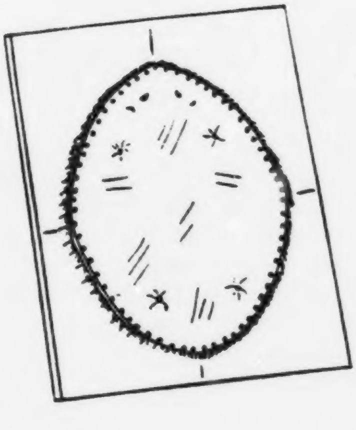


fleshing

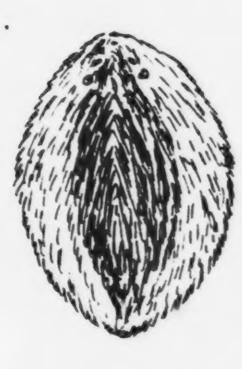


Cutting edge suture needle or 3 sided glovers needle and waxed linen thread.

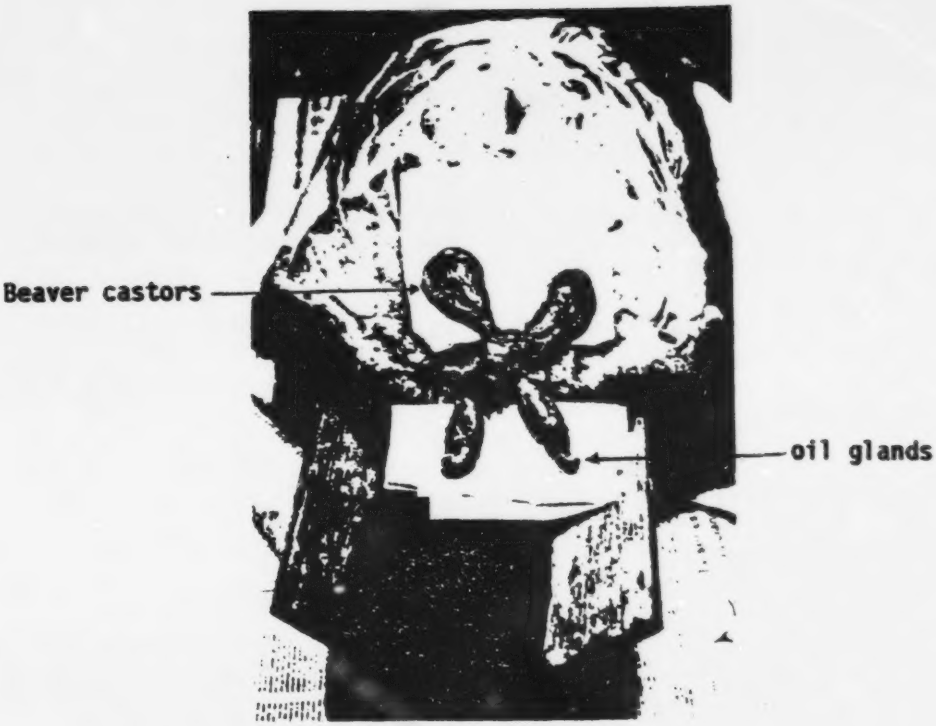
Sewing around beaver leg hole, 1/4" from edge of hole, stitches 1/4" long and half-way through the leather. Then pull thread like a drawstring around a sack. Tuck end of leather back inside hole, tighten and tie the string using 3 - 4 knots.

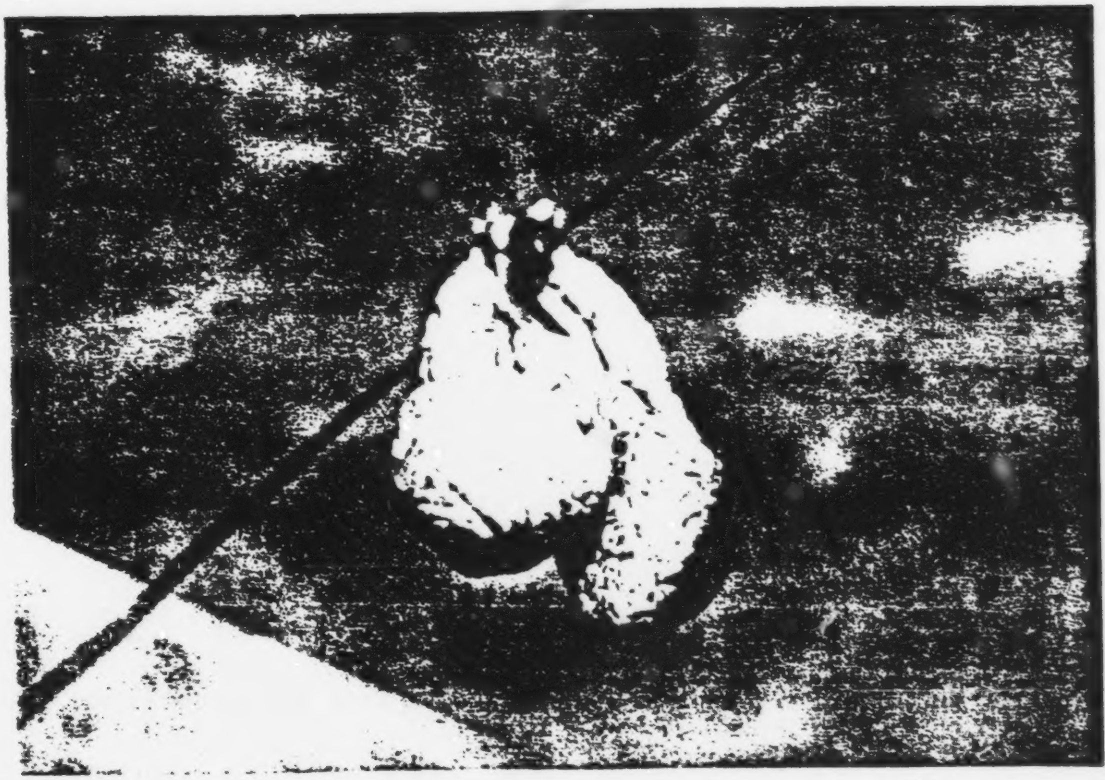


formed and drying



finished pelt ready for marketing


Beaver castors
oil glands



Beaver castors
hung up to dry

To complete the nailing process, go to the nose or tail end and start nailing each way from the centre line until reaching a point opposite the leg holes at that end of the pelt. Go to the other end and repeat, using the same pattern. The remainder of the sides should then be nailed.

(d) Use a good quality flesher and flesh and trim around all leg holes and neatly sew them shut (see diagram for details).

(e) Remove any remaining excess fat and flesh and scrub the leather side of the pelt with warm water and a sponge, cloth, or paper towel to remove any dirt or blood. Lightly scrape with a flesher to "tidy up" the pelt.

(f) Trim off extra flesh and leather at nose and tail ends of pelt and remove the fat around the ears.

(g) Go completely around the pelt, raising it up about one inch off the forming board.

(h) Stand the board with the pelt on it, nose end down for 12 - 24 hours and then turn it nose up, repeating this daily until the pelt is completely dry.

Badger - notable differences from beaver

1. Skinning - usually rough skinned - may be skinned cased or open like a bear or beef hide

(a) To skin like a beef hide, begin by cutting off the front feet only.

(b) Split the belly in a straight line from the centre of the lower lip to the centre of the tip of the tail.

(c) Then split the front legs open along the inside, starting from the nearest point on the centre cut.

(d) Split the hind legs, from the heel of each foot pad along the colour line, to the vent.

(e) Skin out the tail.

(f) To skin cased - begin by cutting off the front feet.

(g) Split the hind legs as above.

(h) Cut around the hind legs above the foot pad and claws, and skin up to the body.

(i) Hang the carcass by the hind feet and peel the pelt down over the body.

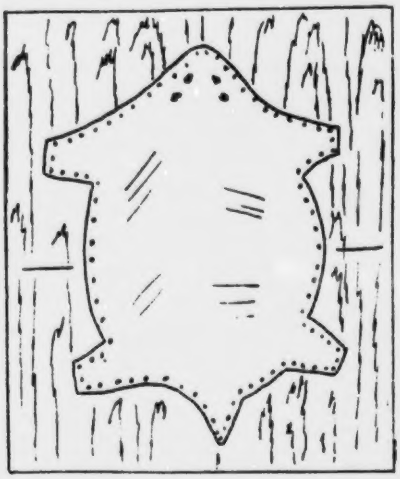
(j) Continue skinning downward past the front legs to the ears, which are cut off close to the body, then skin carefully around the eyes and mouth and cut off the nose.

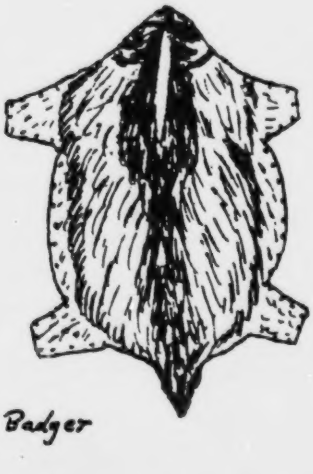
2. Fleshing

The pelt may be fleshed on a beam as for a coyote, or fleshed flat as with a beaver.

3. Forming

Nail out flat as with a beaver, but extend the legs out from the body and nail them open and flat.





Handling Cased Pelts - Fur In

Type animal - "Mink"

1. Preparation

   If fur is dirty or bloody, wash, rinse and dry before skinning.

2. Skinning

   (a) Make a cut from the foot pad of one hind foot across to the opposite foot pad, passing just in front of the anus on the belly side.

   (b) Cut closely around the vent to the base of the tail, being careful not to cut the scent glands on either side of the anus. Carefully remove the scent glands.

   (c) Put some absorbent sawdust on the cut area to prevent blood or grease from getting on the fur. Using your fingers, work the pelt off the upper hind legs, hips and pelvis area and around the base of the tail. Then work toward the hind feet. Hold the leg firmly and pull the pelt free at the foot. (Repeat on the other foot).

   (d) Pull the tail bone free, using a tail stripper.

   (e) Hold the hip and pelvic area firmly and pull the pelt back over the body, inside out, as far as the shoulders.

   (f) Use your fingers to work the pelt off the upper front legs. Then pull each foot free from the pelt.

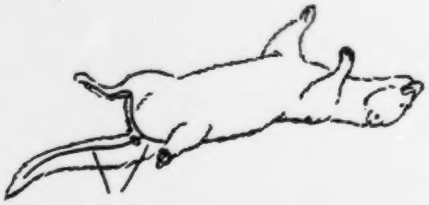
   (g) Continue pulling the pelt until you reach the base of the ears.

   (h) Cut through the ear channel close to the skull and continue to skin toward the eyes. Cut carefully around the eyes and on toward the mouth. Skin past the rear of the mouth opening and cut off the pelt half way along the lower jaw. Finish skinning the upper jaw and nose.

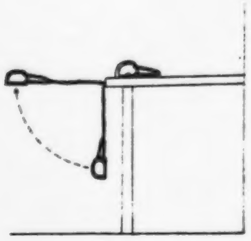
   (i) Place the pelt on a fleshing beam, leather side out, and using a tail splitter as a guide, carefully split the tail full length along the bottom side of the tail.

   (j) Remove fat and flesh from rear legs and tail with a flesher.

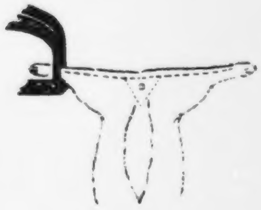
Handling Cased Pelts (Fur In) - the Mink



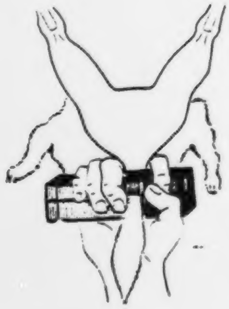
cut



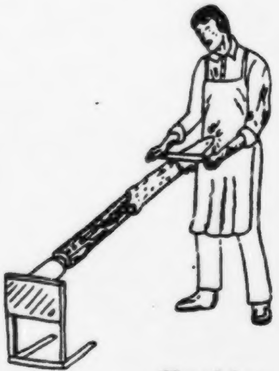
trap used as a clamp



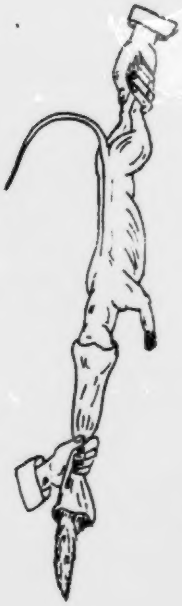
detail of cuts



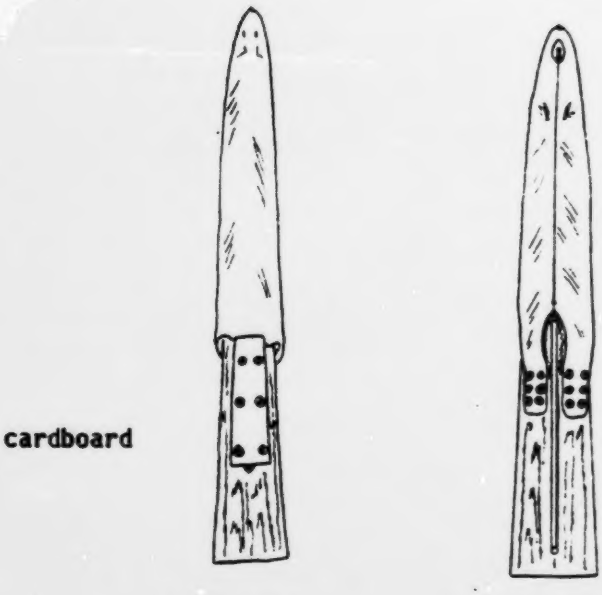
stripping the tail



fleshing



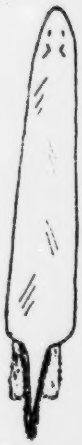
skinning



tail side

belly side

forming and drying



pelt ready for marketing

(k) To hold the pelt snug on the beam, use clamps with an elastic strap attached to a pin. Clamp each rear leg and the tail and stretch the elastic until the pins fit into holes predrilled in the beam.

(l) Use a flesher to remove excess fat and flesh from the entire pelt. Work from the nose toward the tail, starting on the bely side of the pelt. Fine sawdust may be rubbed onto the leather during the fleshing operation to assist in keeping the fur free of grease.

(m) Remove pelt from beam and turn fur side out. Shake it vigorously to fluff up the fur and to remove any remaining bits of sawdust and dirt.

(n) Turn the pelt leather side out and pull it over the correct-size forming board. Using both hands, carefully pull and smooth and snug the head and shoulder area of the pelt on the forming board. Then pull on the hind legs to snug the entire pelt and hold them in place with push pins. The legs are thus held open and flat on the belly side of the board. Wipe the skin with a clean, wet cloth then, using a blunt scraper, lightly and carefully scrape the entire pelt to remove all remaining flesh, sawdust, grease, etc.

(o) Trim off the front legs at the knee (indicated by a small, raised spot on the leather side of the pelt), then tuck the legs back into the pelt.

(p) Make an "inspection" window in the pelt by making a 1/2" - 3/4" cut crosswise on the belly of the pelt about two inches in front of the hind leg opening. Then make a cut straight back from each end of the first cut to the inside edge of each hind leg and remove a small piece of pelt.

(q) Check to be sure the pelt is properly centered on the forming board.

(r) Flatten and spread the tail open in a V shape. Hold it down by covering the entire tail with a piece of cardboard or screen (approximately 3" X 8"). Pin the cardboard or screen to the forming board with six push pins, being careful not to pierce the tail.

(s) Insert a stick under the belly side of the pelt, extending from the mouth past the hind legs.

(t) Hang the pelt head down and allow to dry slowly, occasionally wiping to remove any oil.

(u) Remove the pelt from the forming board and store properly.

Weasel - notable differences from Mink

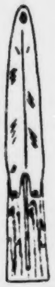
- Is fleshed on the drying board, using a piece of cheese cloth or burlap to rub the fat and flesh off the skin.

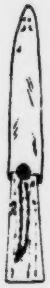
- Don't split the tail.

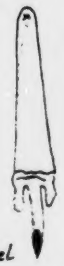
- Use one pin in each hind leg to peg it to the belly side of the board, and one pin at the base of the tail on the back side of the board.

- Trim and tidy up the mouth area.

- Do not make an inspection window in pelt.





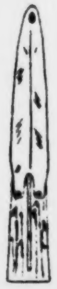


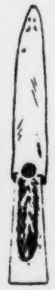
Squirrel - notable differences from Mink

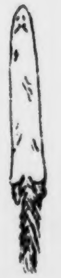
- Same differences as for weasel.

- Also split along the colour line between the hind legs when skinning.

- Do not make an inspection window in the pelt.





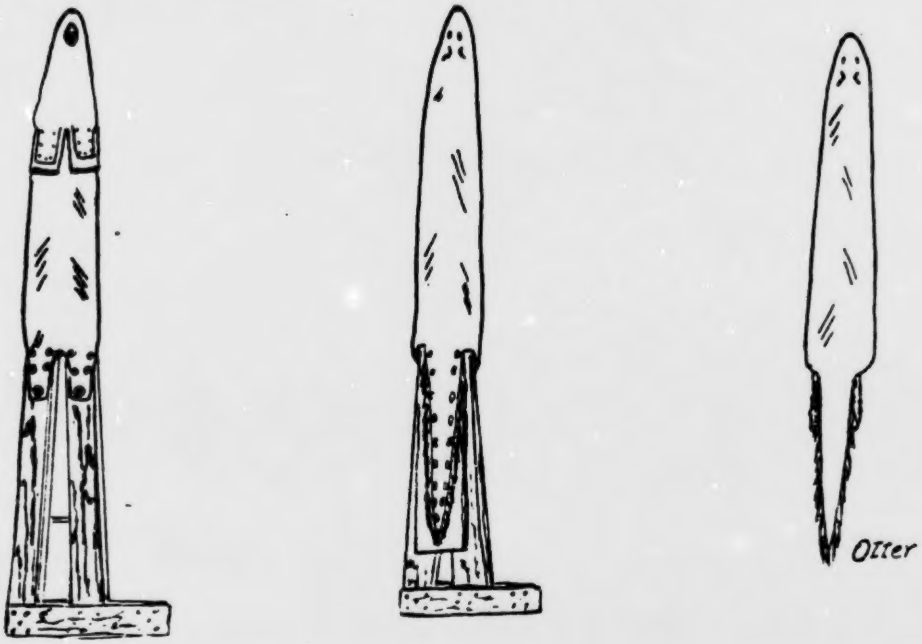


Otter - notable differences from Mink

- Tail is pinned around the perimeter (on a separate board) in a V shape rather than being held by a piece of cardboard.

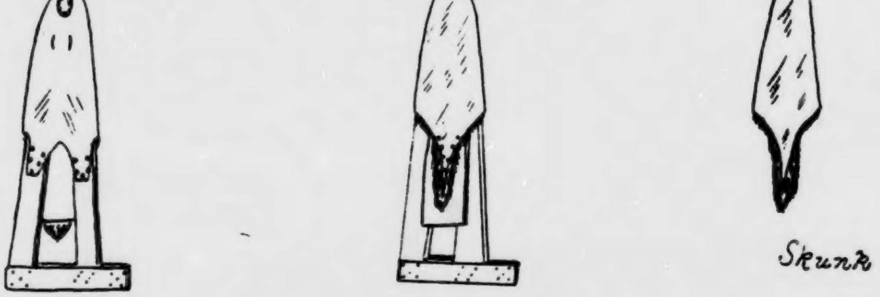
- The front legs are not tucked in but rather are dried by inserting leg boards similar to coyote or fisher.

- A split drying board should be used for otter.



Skunk - notable differences from Mink

- As for raccoon.



Muskrat - notable differences from Mink

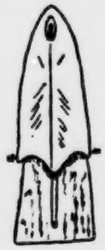
- Cut along colour line from each rear foot pad to the side of the tail. Leave 1/2" - 1" of tail leather on the pelt. The tail is left on the carcass.

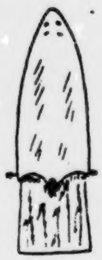
- Flesh on flat flesher or drying board.

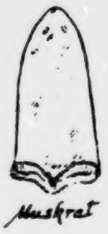
- Only the fat is removed during the fleshing step, the red saddle flesh is left on the hide.

- Put a pin through the small section of tail leather left on the pelt, (at both belly and back in the centre of the board), giving the pelt a V shape at the butt end.

- Put one pin at each hind leg area at the side of the board.







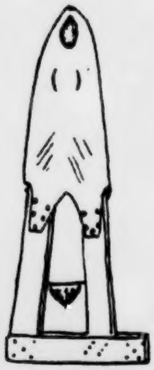
Raccoon - notable differences from Mink

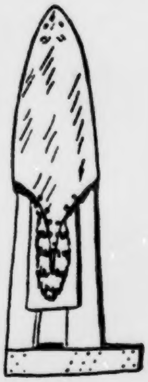
- The tail is pressed open to dry like a coyote tail.

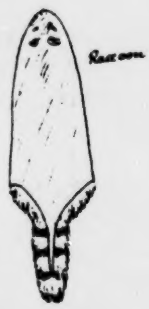
- The butt end of the pelt is also pinned along the border to hold it in place.

- A split board should be used (ie: a belly stick is not necessary).

- Front legs should be cut off quite short and tucked in.







Handling Cased Pelts - Fur Out

Type animal - Coyote

1. Preparation

   Brush or comb the fur to remove any burrs or matted pieces of fur or dirt, prior to skinning.

2. Skinning

   (a) Make a straight cut along the back of each front leg from the heel of the foot pad to the elbow joint near the body.

   (b) Cut the skin around the front paws. Then pull and cut the skin from the legs until it is up past the elbow and close to the body.

   (c) Remove the front legs by cutting at the elbow joint. This gets them out of the way and makes it easier to remove the pelt. (Some people prefer to leave the legs on the animal).

   (d) Make a cut along each rear leg from the heal of the foot pad to the anus, carefully following the fur colour demarcation line (where the light and dark coloured fur come together).

   (e) Cut the skin around the rear paws. Then pull and cut the skin from the legs until they are skinned up to the body.

   (f) Hang the animal up by one rear foot and complete skinning the area between the rear legs, over the hips and around the base of the tail.

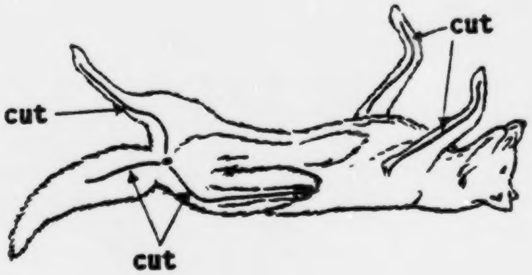
   (g) Fasten the second rear leg on the gambrel similar to the first and use a tail stripper to remove the bone from the tail.

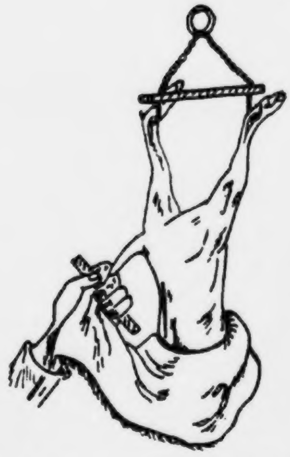
   (h) Pull the pelt down over the body, inside out (like removing a sock) until you reach the ears.

   (i) Cut through the ear channel close to the skull and continue to skin downward on the head to the eyes. Cut carefully around the eyes and on down to the mouth.

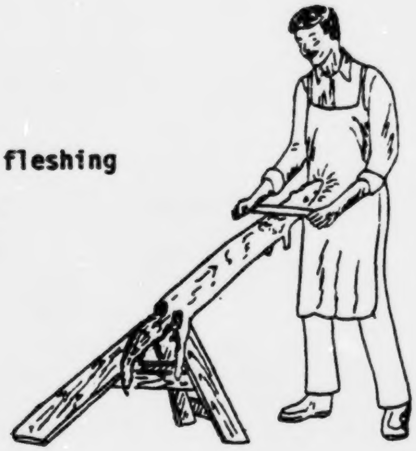
   (j) Skin past the rear of the mouth opening and cut the pelt off midway along the bottom jaw only. Finish skinning the upper jaw and nose.

Handling Cased Pelts (Fur out) - the Coyote

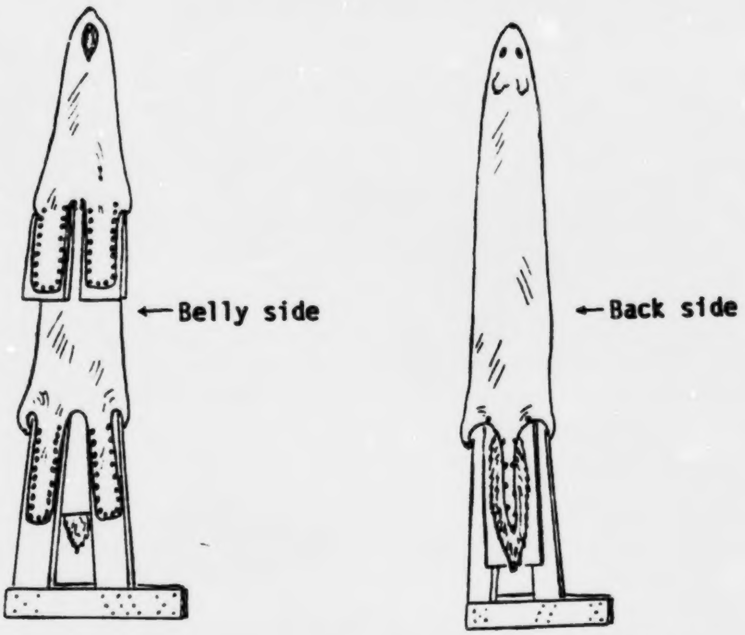




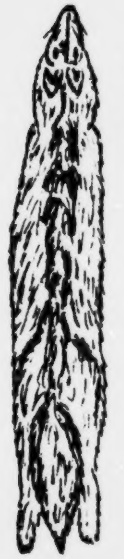
skinning and removing the tail



fleshing


←Belly side
←Back side

forming and drying



Finished pelt ready for marketing

3. Fleshing

(a) Place the pelt, leather side out, over the fleshing beam with the nose at the upper end of the beam.

(b) Using a "semi-sharp", good quality flesher, flesh the entire pelt cleanly, working from the nose toward the tail to remove all excess fat and flesh. (It should not be necessary to use any other material on the pelt, as an aid, in the "fleshing" operation.)

(c) Split the tail full length along the bottom, using a tail splitter as a guide, to make a straight cut.

(d) Remove the pelt from the fleshing beam and turn it fur side out. Wash the pelt in a container to remove any blood and dirt.

(e) Turn the pelt leather out and pull it over a "split type" forming board.

(f) Use the rear legs as handholds to pull on the pelt and obtain the correct length on the forming board (make it snug, do not overstretch). Fasten the ends of the legs to the forming board first, then nail along each border to hold them open and flat.

(g) Sew up any unwanted holes in the pelt.

(h) Spread the forming boards to obtain the correct width of the pelt (pelt should be snug, do not overstretch). Fasten the form base spreader board to maintain the desired shape and width.

(i) Nail the ends of the front legs to a leg board to get the correct length. Then nail them along their borders to hold them open and flat.

(j) Fasten the tail to a piece of board to hold it open and flat and maintain correct length. Place a nail through the butt of the pelt into the forming board on each side of the tail, to hold the pelt in proper position.

(k) Do final touch-up ie: remove ear cartilage, check and trim lower jaw, clean up any remaining bits of fat or flesh on the leather, check and make sure the pelt is properly centered on the forming board.

4. Drying

(a) Allow to dry slowly, positioning the board at an angle so that the front legs hang downward, away from the belly.

(b) When the pelt is partially dried, remove it from the forming board (if the pelt is over dried, it can be softened by moistening it with a damp cloth). Then carefully turn the pelt fur out and pull back over the forming board and refasten as before, using fewer nails. Check to be sure the pelt is properly centered.

(c) Allow the pelt to dry completely, brushing the fur occasionally to fluff up the under fur and guard hairs.

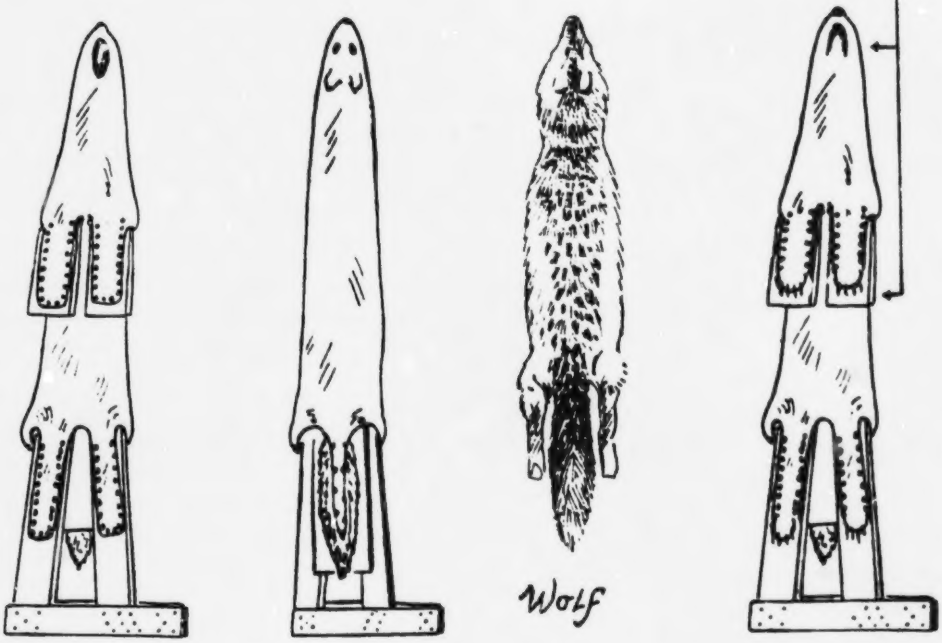
(d) Remove the pelt from the forming board and store properly in a cool, dry place.

Wolf - notable differences from Coyote

If pelt is of good quality and suitable for use as a rug:

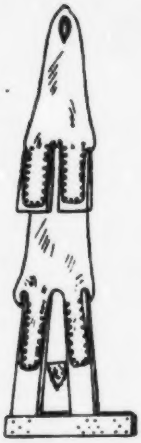
(a) The lips, bottom jaw and claws should be left on.

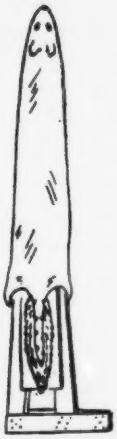
(b) Be sure to remove the cartilage from the ears.

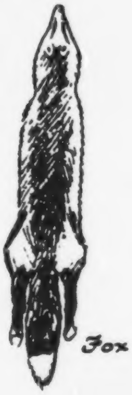


Fox - notable differences from Coyote.

Same as coyote (extra care to open and dry the tail).

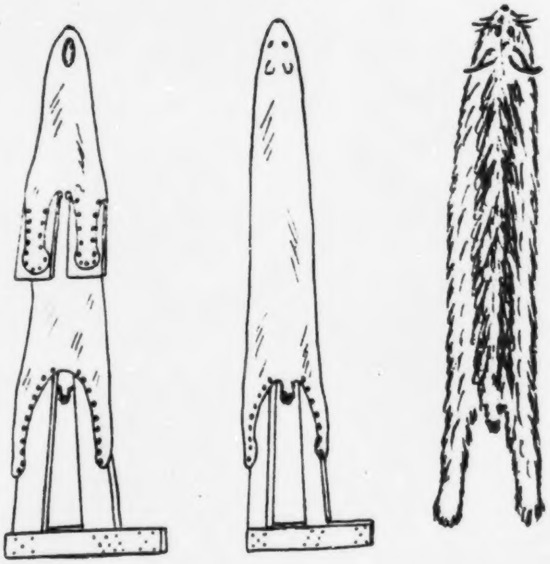


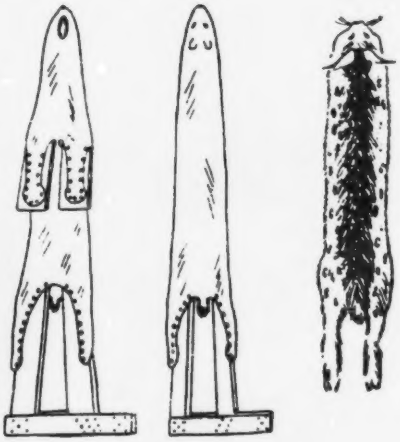




Lynx and Bobcat - notable differences from Coyote.

Remove claws and leave all the fur from the foot on the pelt. Hind legs are fastened around the outer edge of the forming board, with half of the leg on each side of the board.


Lynx


Bobcat

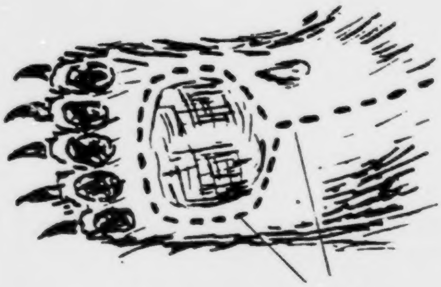
HANDLING HIDES FOR TAXIDERMY PURPOSES

Proper handling of pelts for rug mounting can increase their value. Modern homes with traditional decor in their dens and rumpus rooms have created a new market for what used to be considered low priced furs. A few extra precautions in handling can bring you top prices and also help the taxidermists' task in producing a quality product.

Here are a few DO's and DON'Ts which might prove helpful --

Skin out feet by cutting around main foot pad leaving this part attached to carcass.

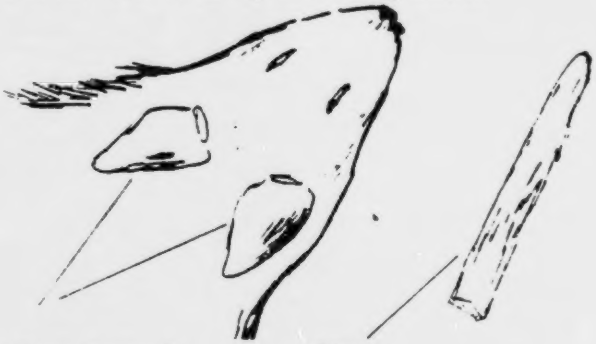
Leave small pads intact, do not slit them open. Cuts in these are very difficult to sew up and cover. Bear hides can be reduced in value as rug mounting specimens because of this.



Cut here

When skinning the head out, care should be taken not to cut eyelids and nostrils. Inside of lips should be left on the hide by skinning mouth out close up against the gums.

Ears should be skinned inside out on bears, wolves, coyotes, lynx and wolverine. This can be done by inserting your finger or a blunt rounded stick into the ear hole and separating the inside skin from the gristle side with knife and thumbnail pressure.



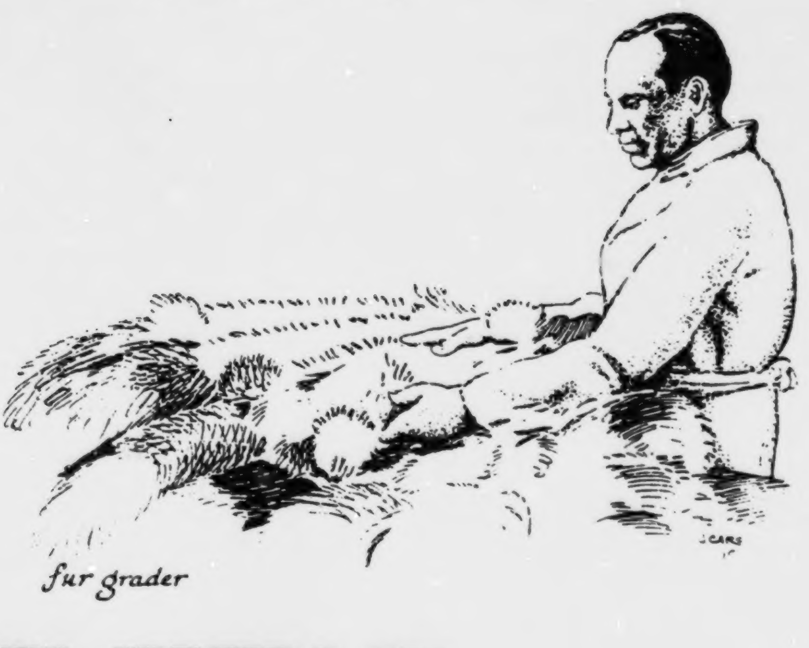
Ears turned inside-out

Blunt stick (flat)

Hides can otherwise be handled in the usual manner. Salting of heavier skinned animals such as bears, particularly around the head and feet would help drying and thus prevent spoilage during unseasonably warm weather.

In conclusion one could do well to remember that clean, well fleshed hides always enhance their market value.

Marketing



fur grader

The Beauty of Furs

Lesson Objectives

To provide the student with information on:

1. How furs are moved to market, what marketing options are available and some helpful strategies in marketing furs.
2. How furs are graded.
3. Fur primeness.
4. How to properly ship furs.

Marketing

INTRODUCTION

Canada's wild furs form only a small percentage of the world fur market, but it is a significant part because these furs are of the highest natural quality. As a result of this, they are and have been in high demand and command good prices when properly handled. But the market for furs is subject to the whims of fashion and politics and may fluctuate rather drastically.

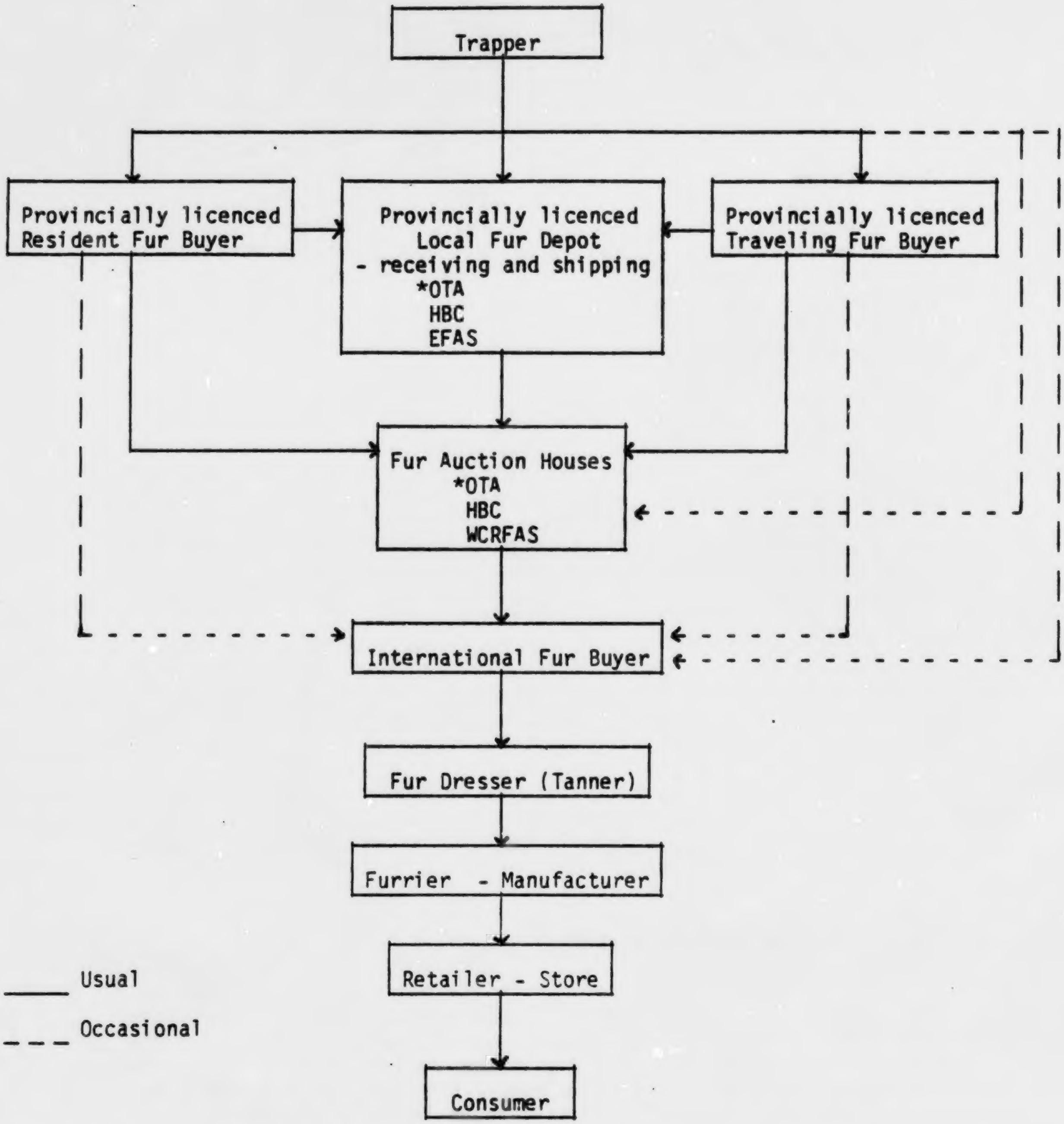
Technological advances can also change the demand for furs; better sewing methods and different dressing processes have made it easier to match skins into garments. The reinforcing of colouring by salts or dying has helped to increase the value of many pelts (ie: marten). Pelts, which were impossible to match before, can now be put into coats. Brighteners have enhanced the beauty of many furs. Yet basic pelt quality, colour, size and handling remain the dominant factors in determining the demand for a pelt.

There may be little a trapper can do to influence some of these trends, but trappers should and can contribute to securing markets for their products by ensuring pelts are handled in the best manner possible and by improving the image of the trapper in the eyes of the public.

If the buyer wants pelts handled in a certain way, or if the consumer wants furs which have been trapped humanely, the trapper should comply with these demands of the market place as it is in his own best interest to do so.

THE MOVEMENT OF FURS TO MARKET

Trappers and fur ranchers form the base of a huge, complex, and labour intensive industry. The trapper should have some knowledge of the various groups and processes involved in the industry, in order to understand the marketing of furs. The "Movement of Furs" chart illustrates the routing and processing steps that a trapper's furs pass through in being marketed.


Trapper
Provincially licenced Resident Fur Buyer
Provincially licenced Local Fur Depot - receiving and shipping
*OTA
HBC
EFAS
Provincially licenced Traveling Fur Buyer
Fur Auction Houses
*OTA
HBC
WCRFAS
International Fur Buyer
Fur Dresser (Tanner)
Furrier - Manufacturer
Retailer - Store
Consumer
Usual
Occasional

*Ontario Trappers Association
Hudson Bay Company
Edmonton Fur Auction Sales Ltd.
Western Canadian Raw Fur Auction Sales

MARKETING OPTIONS AND STRATEGIES

The trapper should explore the marketing options available to him before committing his furs for sale. Knowing what options are available and what advantages and disadvantages are involved with each will help the trapper to select the best option to meet his needs.

The two most common ways of marketing furs are to sell them either to a local buyer or to take or send them directly to an auction house or a receiving depot, to be forwarded to an auction house to be sold.

The local buyer offers the convenience of being readily available and of offering immediate payment to the trapper. The trapper also has the choice of either accepting the offer or going elsewhere. But the local buyer is an independent businessman and, like any businessman, must make a profit from the furs he sells.

The receiving depot will give the trapper a partial payment in advance for his fur, obtain export permits if the fur is to be shipped out of the province and will forward the fur to the auction house.

The auction houses offer such services as drumming (which may up the grade of a pelt), having expert and standardized grading, access to a wider range of buyers and competitive bidding. The trapper also receives a written record of his fur grades. A service fee or selling commission is charged when pelts are auctioned and there will be a delay in receiving the balance of the payment for the furs shipped.

Fur should be taken when prime and sold or shipped to market as soon as possible. When this is done, the fur will fit readily into the normal grading lots and is more likely to obtain the best price.

If fur is held too long, it will be of a different primeness than a majority of the fur being sold at that time. It may have to be sold as a small, separate lot where it is more likely to bring a lower price because of buyer resistance.

If trappers place poor quality and/or carelessly handled pelts on the market, it will have the effect of pulling down the overall average price for the commodity. The trappers' image will also be tarnished. If only prime, well-handled pelts were on the market, buyers and manufacturers who normally buy poor quality furs would have to compete with other buyers and manufacturers for the better quality furs. This additional competition would have the effect of raising the average price.

Another problem is the practice where money appears to have been paid for a pelt having no value where, in reality, the value was deducted by the buyer from a better pelt sold by the same trapper. This has the effect of encouraging the continued dumping of unprime, poorly-handled or badly damaged pelts on the market.

The buyer is motivated to do this in order to maintain good customer relations and the trapper becomes involved in this kind of a situation when he is unable to judge the true value and quality of his fur.

Trappers and others in the industry should strongly discourage this practice as it adversly affects their image.

In order to overcome this problem, a trapper is urged to take steps to learn better fur handling techniques, when to harvest furs, and the basics of how fur is graded in order to assess the value of his pelts.

Most of the best sales occur from december to February, as this is when the greatest quantity of prime pelts are available and the greatest number of buyers are present to bid on the fur.

The following is a list of the fur receiving depots found in Alberta:

Hudson Bay Company
Raw Fur Department
10575 - 106 Street
Edmonton, Alberta
Phone: 423-3531

Edmonton Fur Auction Sales Ltd.
10505 - 106 Street
Edmonton, Alberta
Phone: 426-7790

Ontario Trappers Association Fur Sales Service
10524 - 106 Street
Edmonton, Alberta
Phone 425-8718

Independent Fur Buyers

Students should be aware that there are numerous fur buyers licenced throughout the province of Alberta. If students wish to have further information on them, they should contact the Fish and Wildlife Branch.

THE GRADING OF FURS

Fur grading can be defined as "the ability to examine a fur pelt of whatever type and to logically decide what characteristics place a particular pelt in a particular catagory". This may sound relatively simple but in fact, fur grading is a very difficult and complex process which takes many years of training and experience to learn well. It is no accident that there are only a handful of expert graders in the world. Nevertheless, it is worthwhile for the trapper to learn the basics of fur grading so that he knows what the buyers want in a pelt and what things to avoid. It will help him estimate the quality and value of his pelts and know if he is being given a competitive price.

The general procedure followed in grading is to first observe the overall appearance of the pelt. Handling factors such as the shape or form of the pelt, how clean and well-fleshed it is, etc., are noted.

It is then measured to determine the size. All cased pelts, as well as badger and bear are measured from the tip of the nose to the base of the tail. Beaver are sized by measuring the total length and the total width through the center of the pelt in the form of a cross and the two measurements are added together.

The colour of the fur and leather are examined; the fur primarily for clarity and the leather for primeness and taint. The natural quality of the fur is inspected for density (the thickness of the fur), and completeness (all the guard hairs present, not clipped or rubbed).

Damages such as cuts, bite marks, shot holes, etc., are taken into account and the pelt is down graded according to the type, extent and location of the damage.

Finally, the pelt is placed into a grade such as Firsts, Seconds, Thirds, etc. (See grading descriptions, Page ____.)

The pelt is then placed in a group of pelts which is called a "lot" to await auctioning. In the case of a local buyer, a price is offered.

If the best possible value is desired, it should be clearly evident that it is very important to take pelts when they are as close to prime as possible and to handle them well. The graders rarely misjudge the quality of a pelt or the results of careless workmanship by the trapper.

The industry has found it necessary to assign different standards of size, quality, etc. for grading furs from several different regions. These are referred to as fur sections or "marks" (see grading descriptions and map). This is because the natural characteristics of any wild animal will vary according to the feed, space, water and climate it inhabits as well as the genetic makeup of the population. These factors will vary from region to region. The idea that only cold produces a better pelt still persists, but feed, water and shelter are also important factors.

In order to assist trappers in understanding some of the terminology used by fur buyers and graders, there is included here a list of grading descriptions and terms used to describe furs, with an explanation of their meaning.

GRADING DESCRIPTIONS

SIZES:

XXXL, 0	Supers, Jumbo
XXL, 1	Extra, Extra Large
XL, 2	Extra Large
L, Lge, 3	Large
LM, Lge Med. 4	Large Medium
M, Med. 5	Medium
S, Sm, 6	Small
CUB 7	Cub
XSM	Kitts
AVG	Average

GRADES

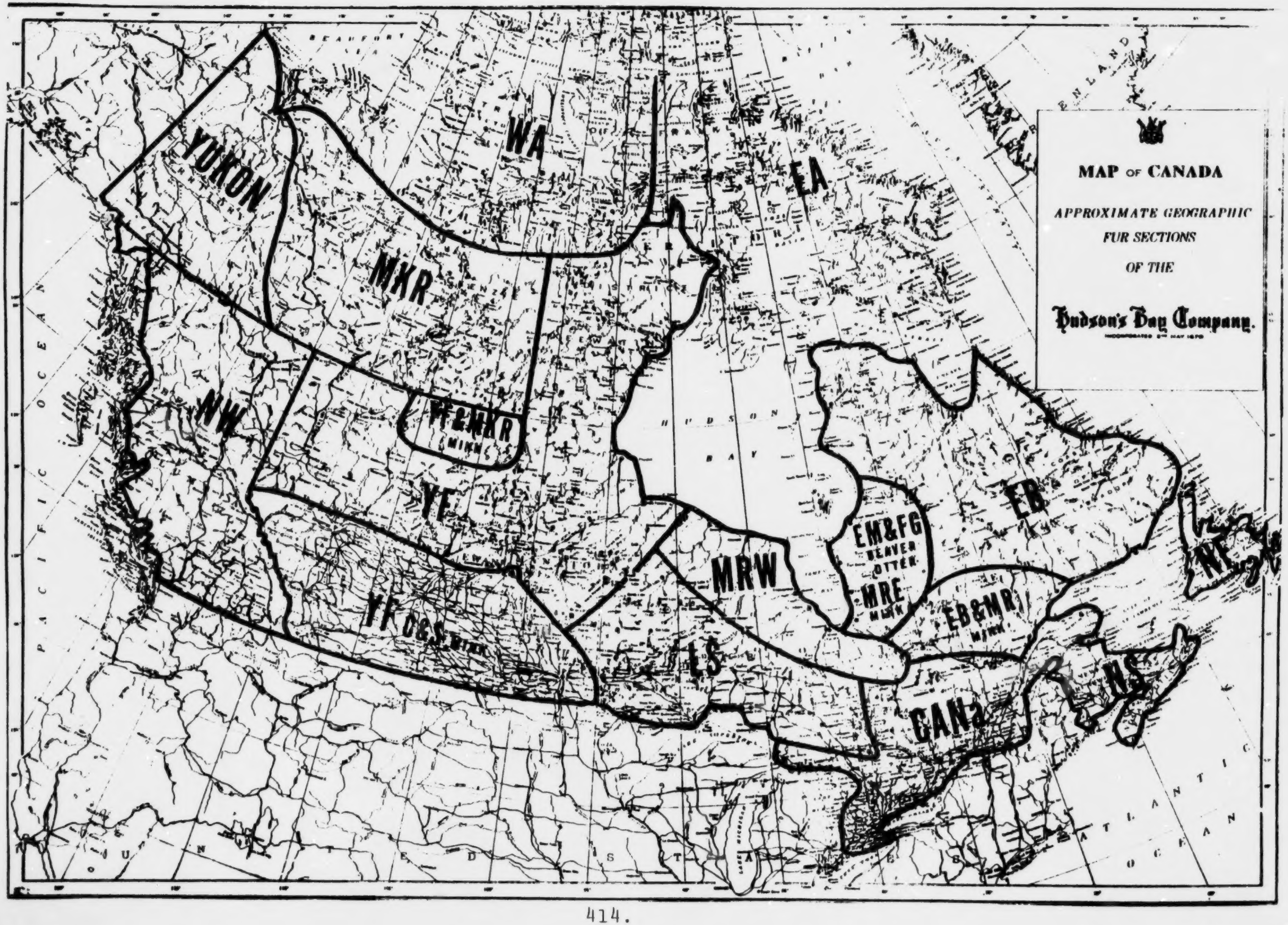
1 & No. 2	Best Quality, Select
I-II	Very Good Quality
SL	Good Quality with Slight imperfections
SEC	Good Quality, Slight Weak
II	Fair Quality
II ORD	Slight Weaker than Fair
LO II	Poor Quality
III	Very Poor Quality
IV	Extremely Poor Quality and badly damaged
E	Early
SP	Springy
SHEDDER	Late Caught

OTHER:

BD	Bad
CSD	Cased
CLN	Clean
CR	Coarse
DGD	Damaged
DSD	Dressed
FLS	Falls
FL	Flat
GC	Good Colours
GD	Good
GW	Good Weight
GRS	Greasy
GRZ	Grizzly
HY	Heavy
HO	Hair Out
LO	Leather Out
LT	Light (Weight)
OC	Ordinary Colours
OP	Open
ORD	Ordinary
OW	Ordinary Weight
PT	Part
PC	Poor Colour
PR	Poor
RB	Rubbed
SH	Semi Heavy
SL	Slight (damaged, off colour)
SLDGD	Slight damaged
SGD	Singed
SMTH	Smooth
SO	Slight Off
SS	Slight Singed
STL	Stale
WK	Weak
WTR	Winter
WLY	Wooly

SECTIONS:

AB	Alberta	NC	North Central
ARCT	Arctic	ON	Ontario
BC	British Columbia	SK	Saskatchewan
MB	Manitoba	USA	United States
MKR	MacKenzie River	W	Western
N	Northern	WA	Western Arctic
NA	Northern Alberta	Y	Yukon



MAP OF CANADA

APPROXIMATE GEOGRAPHIC
FUR SECTIONS
OF THE

Hudson's Bay Company.

YUKON
WA
EA
MKR
YF&MKR
MINK
NW
YF
YF O&S MINK
HUDSON BAY
MRW
LS
EM&FG
BEAVER
OTTER
MRE
MINK
EB
EB&MR
MINK
NF
NS
CANa
PACIFIC OCEAN
ATLANTIC OCEAN
UNITED STATES
GREENLAND
BEAUFORT SEA

Weight and Duribility of Furs

Dressed furs (those that have been processed for use in fine garments), vary in durability and weight. The cost of a garment is usually related to durability - those furs that wear the best bring the highest price.

Another important factor, however, is the weight of the fur. For example, a heavy-leathered fur made into a full-lenght coat may be too heavy for the luxurious comfort most buyers expect from a fur garment.

The following list compares the relative durability and weight of the most common dressed furs, with otter (both land and sea) rated at 100 as the standard of greatest durability.

Species	Durability	Weight in ounces per square foot (dressed fur)
Sea Otter	100	4 1/2
Land Otter	100	4 1/2
Wolverine	100	7
Beaver, natural	90	4
Beaver, plucked	85	3 7/8
Mink, natural	70	3 1/4
Mink, dyed	35	3 1/4
Marten, natural	65	2 3/4
Wolf	50	6 1/2
Muskrat	45	3 1/4
Fox, natural	40	3
Fox, dyed black	25	3
Lynx	25	2 3/4
Ermine	23	1 1/4
Rabbit and hare	5	2 1/4

Terms Used to Describe Raw Fur

1. Badly Sewn - This results when jagged or bloodstained holes of a considerable size are poorly sewen.
2. Badly Shot - This occurs when pelts are peppered by shot, badly holed by a bullet or are bitten or otherwise holed in numerous places.
3. Bitten - This damage usually occurs through battle scars suffered by beaver and muskrats during the mating season.
4. Boardy - Refers to a condition in raw fur where the leather is stiff, generally occurs in springy pelts. Most noticeable on the back of the neck on lynx and fisher.
5. Burnt - This condition occurs when a pelt can be cracked owing to quick drying by fire, hot sun, or by grease burn. The pelt will seldom survive the dressing process and thus, is usually worthless.
6. Clean - For weasel or muskrat, means seasonable skins free of damage. A percentage of slightly shot skins in squirrel is allowed.
7. Clipped or Sheared - This condition occurs when guard hair and/or underfur is missing, caused by knife or other cuts, or where the fur has been eaten away by mice, shrews, etc.
8. Coarse - This condition describes the texture of the hair when it is harsh to the touch.
9. Complete - This refers to a pelt that is fully covered with guard hair.
10. Damaged - A pelt that is rendered incomplete to an extent that it requires expert repairing, or involves a risk in the dressing process. Damage can result from improper handling or can be the result of fighting by the animal, or disease.
11. Density - This refers to the thickness of the underfur, which is more important than depth. Dense underfur is usually accompanied by at least an adequate amount of depth to make a good skin.
12. Depth - This describes the length of fur.
13. Drowned - This condition of the pelt occurs when animals are trapped in water and can bring about a taint condition. Usually occurs when animals are left too long in the water.
14. Flat - This refers to guard hair lying flat on the back, due to lack of underfur.
15. Flow - This condition refers to a life-like appearance of the fur on a pliable skin when it is handled.

16. Guard Hair - The long outer hair of the fur which provides protection from the weather. This hair is usually fine, silky and lustrous, but in some animals, can be thick, coarse and dull.

17. Hairslip - Hair falling out of the pelt as a result of damage to the hair roots or the fur being left too long on the carcass and spoiling.

18. Heavy - Refers either to the weight of the fur or, as in the case of muskrat, the thickness of leather and fur.

19. Immature - This condition refers to pelts taken too early, showing less than the full growth of underfur and guard hair.

20. Loose (open) Flank - Shortage of guard hair along flanks, indicative of overprime pelt.

21. Loose - This occurs when top hair is coming away from the skin, owing to exposed roots in early caught pelts, or by the seasonal loss of guard hair (shedding) in the case of some late-taken pelts.

22. Low - This refers to underdeveloped underfur.

23. Over-Stretched - Refers to pelts that are stretched too wide, or too long and narrow. Over-stretched pelts may result in a larger size, however, they will lose quality due to the fur being spread more thinly.

24. Oxidation - The natural process by which all organic material, including fur, ages due to exposure to light and air. It usually manifests itself by a darkening or reddening of the fur and the yellowing of the skin. Modern tanning slows the process, leaving the colour more natural.

25. Prime Pelt - The leather side is clear and white or very slightly blue, usually soft, pliable and slightly greasy - the underfur is dense, deep and completely covered by guard hair. The overall appearance is glossy and the fur full of life and flow to the touch. These pelts are only available in season and, unless damaged, are usually placed in Grades I and II.

26. Rough - This condition occurs when guard hair and underfur are fully developed. Rough can refer to heavy but rubbed skins of foxes.

27. Rubbed - This condition is usually found in over developed pelts. The loss of guard hair, due to rubbing or freezing to the snow, is increased and the underfur exposed, as a result of this overprime condition.

28. Scored - This refers to the area of a pelt where a bullet loosens fur and shows a bare or bloodstained trail on the pelt.

29. Shedder - A condition that occurs in muskrats late in the season when the leather becomes light and papery and blotches occur around the kidneys on ths side of the raw muskrat pelt.

30. Short Nap - This is a term used to describe the short fur of some mink and indicates types most desirable for coat purposes.

31. Silky - This condition describes the texture of the fur when it is soft to the touch.

32. Singed - A condition in guard hair, expecially in late-caught mink and otter, where the ends of the hair are curled or broken. This may be caused by exposure to excess heat, sunlight or rubbing.

33. Snared - This is caused when the fur is rubbed off down to the skin by a wire snare. The mark is often readily visible on the leather.

34. Springy - This usually occurs in late-caught pelts that appear lifeless or have faded underfur and often is a rather hard or dry pelt. The guard hair may be rubbed, brittle, incomplete or singed. Can be indicated by black markings on the leather.

35. Stain - Pelt discolouration mainly noticeable in polar bear and white fox. Depreciates value of fur.

36. Tainted - This is the worst form of damage. When slight - can be difficult to detect. it causes slipping of guard hair and underfur and is usually indicated by a discoloured or transparent patch on the pelt side. It can be caused by decomposition of the pelt surface when an animal is left too long in the trap. The fur comes away in quantities from the affected area, and an offensive odor is evident.

37. Underfur - The shorter underhair of furs with guard hair. It is usually denser, more compact and lighter in colour than the guard hair. The colder the climate the animal lives in, the denser and more compact (and warmer to wear) the underfur will be.

38. Unprime Pelt - Occurs when fur is coming into prime or leaving the prime condition.

Early-Caught Skins	Late-Caught Skins
(a) Pelt - blue, greasy and plyable	(a) Hard and/or dry pelt, often veined or spotty
(b) Fur - low or flat in center back	(b) Faded or poor colour, open and weak in appearance, or rubbed
(c) Neck - low or flat	(c) Dry and lifeless fur
(d) Complete looking	
(e) Fur at its best for colour	

Unprime pelts are usually graded as seconds. The leather of very late-caught skins is often blotchy or black, especially in mink and otter. They are graded as thirds and fourths.

39. Veiling - length of guard hair around head and neck of foxes.

40. Wooly - Refers to a pelt having thick and lifeless underfur and lacking guart hair, but not necessarily rubbed.

Terms Used in Fur Processing and Manufacture

1. Dropped - Cutting pelts in a manner which creates a pattern that allows the length of the pelt to be extended. Also see let out.

2. Drumming - Cleaning fur by placing it in a drum containing chemically treated sawdust. As the drum revolves, the sawdust removes dirt and excess oil from the fur.

3. Dyeing - Changing the natural colour of a fur by chemical process, whether to imitate another fur colour or make colours such as pink, red, blue. Any fur, flat, curly or long-haired may be dyed. Dyed fur does not wear as well as natural fur because dyes tend to weaken the leather and make the fur more brittle.

4. Feathering - A term originally used to identify dyeing done with a feather. It is now used interchangeably with leathering (see #10).

5. Flat - a description of raw fur that has a short growth, or basic lack of underfur. Generally unprime pelts.

6. Glazing - A process that brings out the natural lustre and sheen of a fur after it has been cleaned. different furs are glazed in different manners, but it usualy involves steaming and ironing.

7. Hair-up - The process of reversing the skin so that the rump of the fur is at the top of the coat where the neck end would normally be. The hair then falls away from the body, which can enhance the appearance. This does not affect the warmth or the life of the coat.

8. Hide-out - The technique that allows furs to be worn with the leather side out. The leather is usually sueded, dyed or enhanced in some way, such as alternating strips of fur - one with fur out and the next with leather out.

9. Knitting - Flat furs such as squirrel or rabbit are cut into very narrow strips which are sewn together creating a king of "yarn". This is then knitted or crocheted with needles, creating unusual colour and texture effects. Real yarn may be combined with the fur yarn.

10. Leathering - Separating furs with insertions of leather, suede or ribbon that are not visible. It can be done horizontally, diagonally or vertically. It creates unusual visual effects and also makes the coat lighter in weight. In the case of long hair furs, it makes them less bulky. This is also called feathering.

11. Let Out - Single pelts sliced into narrow strips are then sewn together again in a single, longer, narrow strip. This changes the shape of the pelt but not the square area. Letting out provides for less bulk in a coat and permits greater variety in design and style. It does not affect either the warmth or wearability. Not all furs are or should be let out. Type of fur and size of pelt may dictate different techniques.

12. Pieced - Fur garments made from small pieces of fur such as paws, tails, gills (an area near the head), or other small pieces cut away from a pelt when it is cut to fit the pattern or let out. The pieces are then recut and sewed together into plates.

13. Plates - Lengths of fur made from pieced furs.

14. Plucking - Improving the overall texture of the fur by removing the guard hairs by plucking or tweezing. This can be done to the guard hairs along the back or to all the guard hairs on the pelt so that the underfur can be sheared.

15. Quilting - Usually done on flat furs such as sheared beaver, fur is quilted into patterns, like cloth.

16. Ribbing - Using a process similar to leathering, this is usually done on a flat fur like beaver to create a ribbed effect that resembles corduroy.

17. Section - Pelts of similar characteristics influenced by feed, climatic conditions and genetic considerations that are identified with areas from which the majority originate.

18. Shearing - Cutting underfur to an even, plush, velvety texture after the guard hairs have been removed. The pelt can also be sheared at two levels, giving a ribbed or patterned appearance. Shearing does not affect warmth of the garment but makes if feel lighter on the shoulders. Shearing is common on such furs as beaver, raccoon and opossum.

19. Tanning - Also called dressing, it is the process of scraping and fleshing the leather side of the raw pelt to remove excess fats anad material. The pelt is then soaked and washed in special solutions softened with oils, cleaned and combed. This process changes the raw, brittle pelt into a soft, beautiful, wearable fur.

FUR PRIMENESS AND PRIMENESS CHARTS

During the late summer or early fall, fur bearers gradually shed their coat of summer fur while replacing it with a new coat of longer, denser, winter fur. In the early stages of growth, the roots of the hair are deeply embedded in the leather and a pelt taken at this time of year (known as under prime) will appear dark or bluish on the skin side as a result of the roots showing through.

As the hair grows towards prime, the roots move further up into the leather and a fully prime pelt then has a clean, pale appearance on the flesh side. Eventually, the hair roots reach close to the outer surface of the hide and fall or slip out. This is called an over prime pelt. Buyers prefer pelts which are just slightly under prime, as otherwise, it is difficult to gauge whether there will be shedding or not.

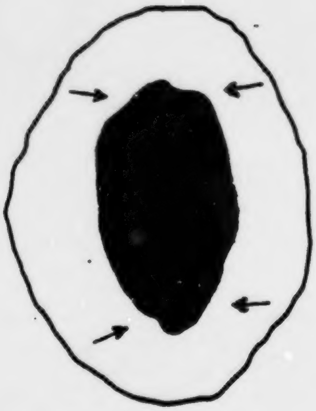
The time of priming will vary from species to species, from one zone to another and from year to year. Also, the trapper cannot rely upon the season dates given in the provincial regulations to gauge primness because the dates given are made broad enough to include these variations. To assist in this matter, there are a set of Primeness Charts included in this manual.

The use of the charts will allow the trapper to estimate much more closely the best time to harvest each species of fur bearer. A good practice is to begin by trapping one animal and checking the primeness. If it is not ready, then wait and try again a bit later. When an animal is secured which is of the right primeness, begin your operations in ernest. The Primeness Charts also show pelt value discount percentages (the percentage the pelt is lowered in value) as well as desirable features for some species. These are generalizations and in actuality, may vary at different times and places, depending upon the market supply and demand.

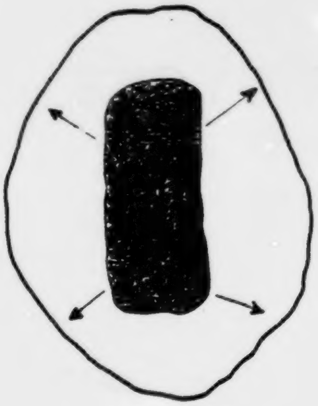
The colour classifications and sizing of the pelts shown on the charts may also vary from one area to another.

FUR PRIMENESS AND DAMAGE CLASSES

BEAVER

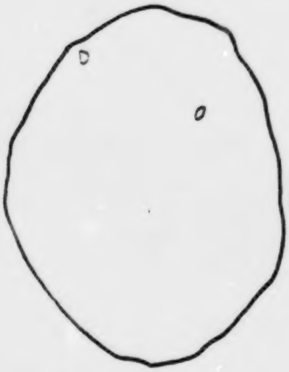


PRIMING MOVES
FROM EXTREMITIES TOWARD
CENTRE (BACK)

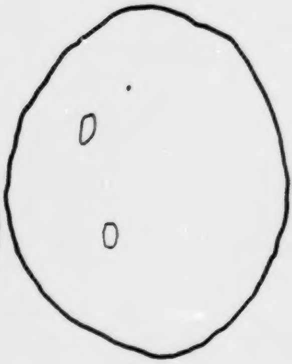


SHEDDING BEGINS
AT CENTRE (BACK)
MOVES TOWARD
EXTREMITIES

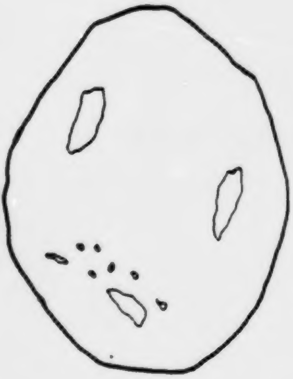
BEAVER



SLIGHTLY
DAMAGED

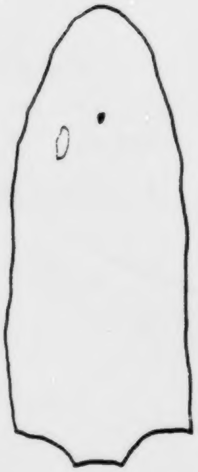


DAMAGED



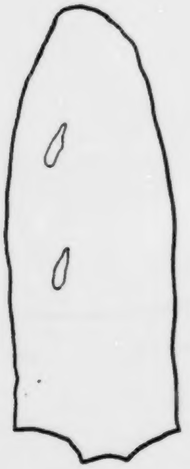
BADLY
DAMAGED

MUSKRATS



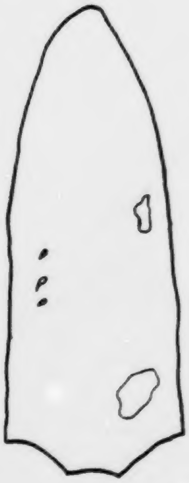
SLIGHTLY
DAMAGED

2



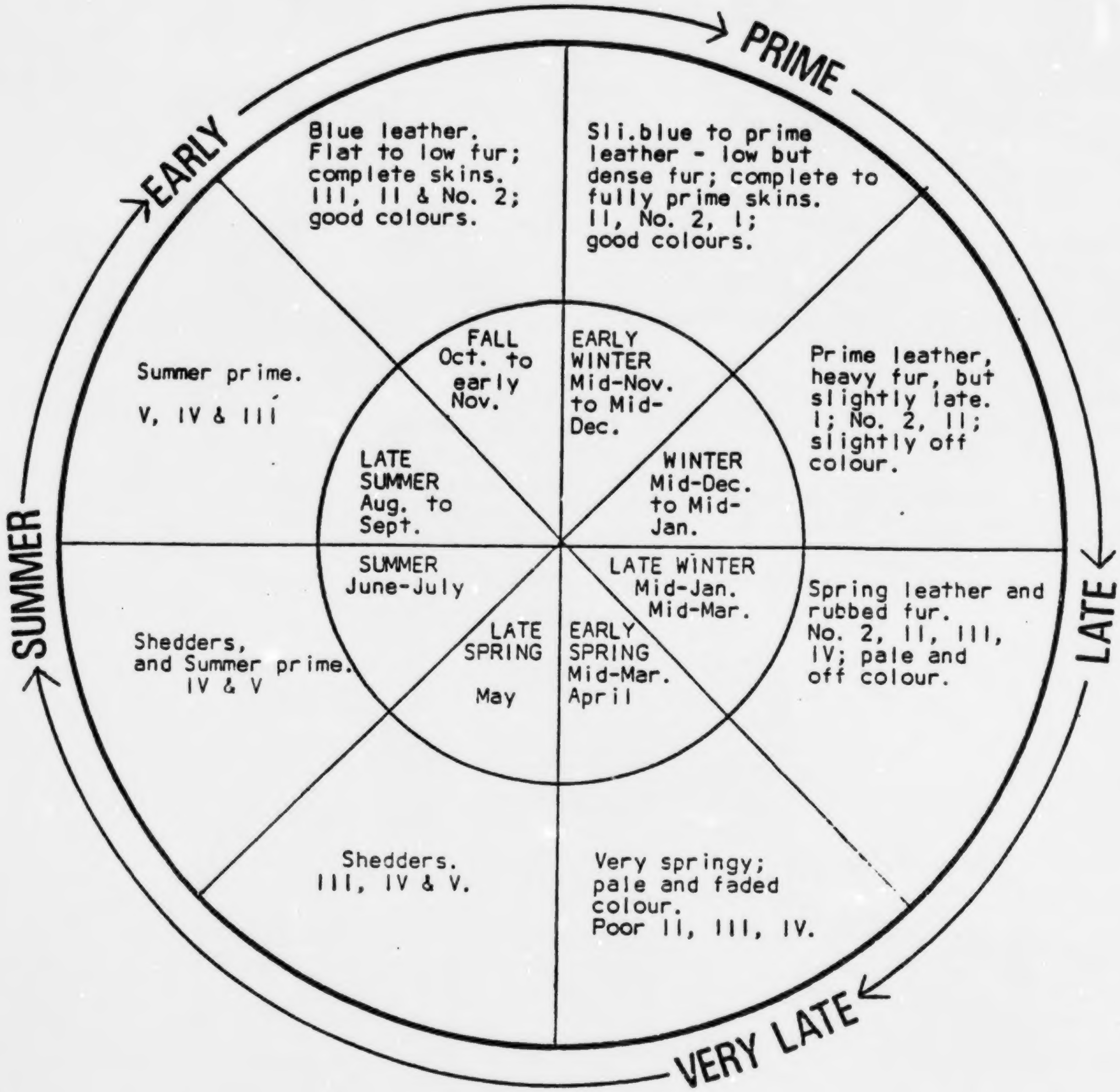
DAMAGED

3



BADLY
DAMAGED

FUR CYCLE - SEASONAL CHANGES


PRIME
LATE
VERY LATE
SUMMER
EARLY
Blue leather. Flat to low fur; complete skins. III, II & No. 2; good colours.
Sli.blue to prime leather - low but dense fur; complete to fully prime skins. II, No. 2, I; good colours.
Prime leather, heavy fur, but slightly late. I; No. 2, II; slightly off colour.
Spring leather and rubbed fur. No. 2, II, III, IV; pale and off colour.
Very springy; pale and faded colour. Poor II, III, IV.
Shedders. III, IV & V.
Shedders, and Summer prime. IV & V
Summer prime. V, IV & III
FALL Oct. to early Nov.
EARLY WINTER Mid-Nov. to Mid-Dec.
WINTER Mid-Dec. to Mid-Jan.
LATE WINTER Mid-Jan. Mid-Mar.
EARLY SPRING Mid-Mar. April
LATE SPRING May
SUMMER June-July
LATE SUMMER Aug. to Sept.

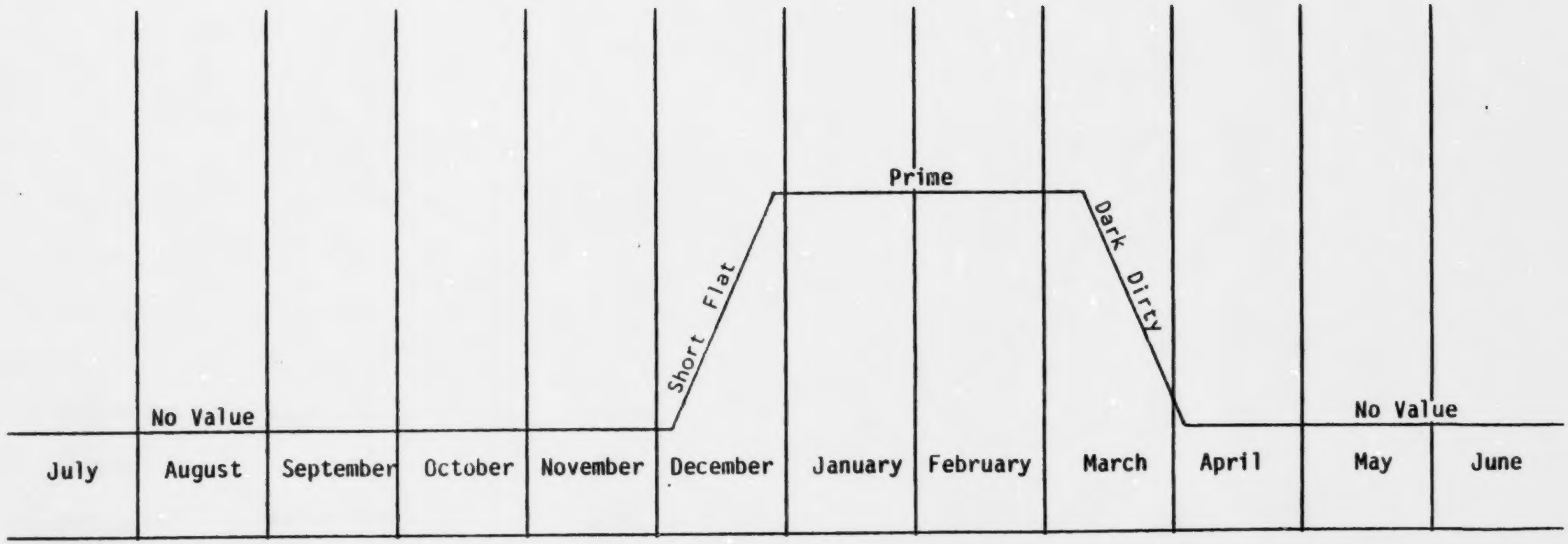
BADGER

Pelt Value Discounts

- Dark coloured fur
- Short fur
- Damaged
- Shedding
- Rubbed

Desirable Features

- Pale, silky fur
- Long fur on the back - minimum - 1 1/2" - 2" length



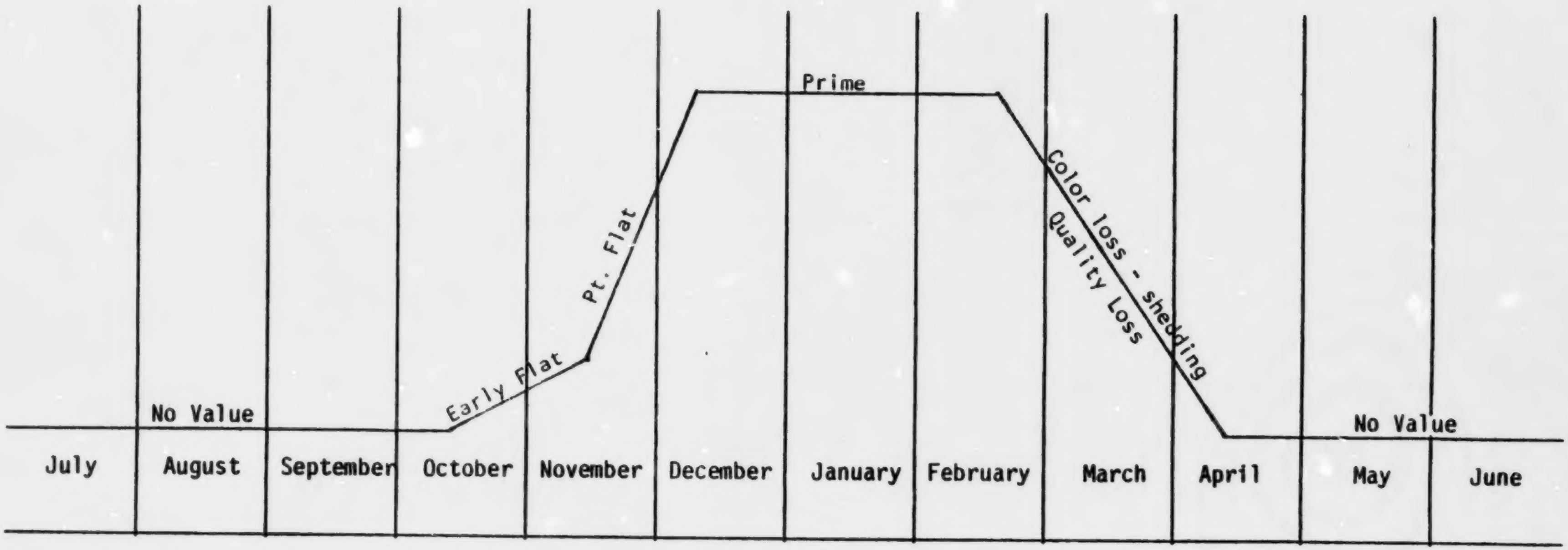
BEAVER

Sizes	
Small	44" or under
Medium	44" - 48"
Medium-Large	48" - 52"
Large	52" - 60"
Ex-Large	60" - 65"
Blanket	65" - 70"
Super-Blanket	70" or over

Pelt Value Discounts	
I - II's	Basis
Seconds	-10%
Flat II's	-25%
Sheddery II's	-40%
Low II's	-50%
III's	-75%
IV's	-no value
Slightly damaged	-25%
Damaged	-50 - 60%
Tainted	-90%
Badly damaged	-90%
Burnt	-no value

Colours

- Dark
- Dark Brown
- Brown
- Pale
- Red



BLACK BEAR

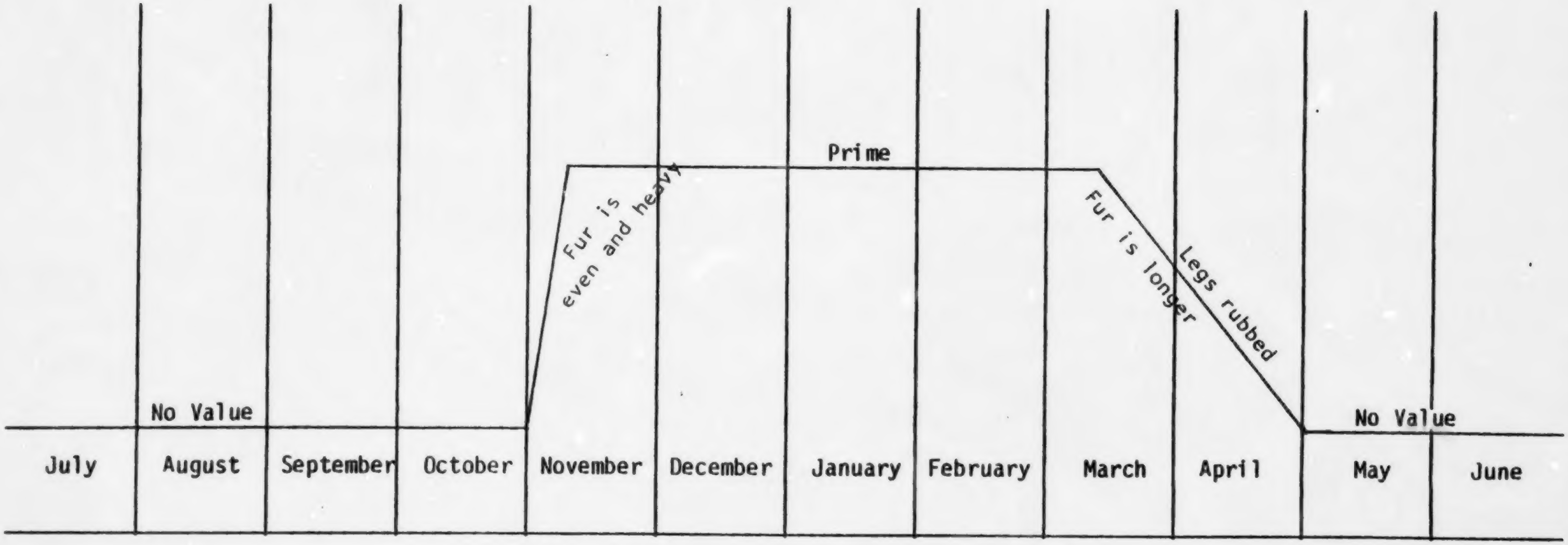
Sizes	
Small	3' - 4'
Medium	4' - 5'
Large/medium	5' - 6'
Large	6' - 7'
Extra Large	over 7'

Pelt Value Discounts

- Lips removed
- Ear cartilege left in
- Poorly fleshed

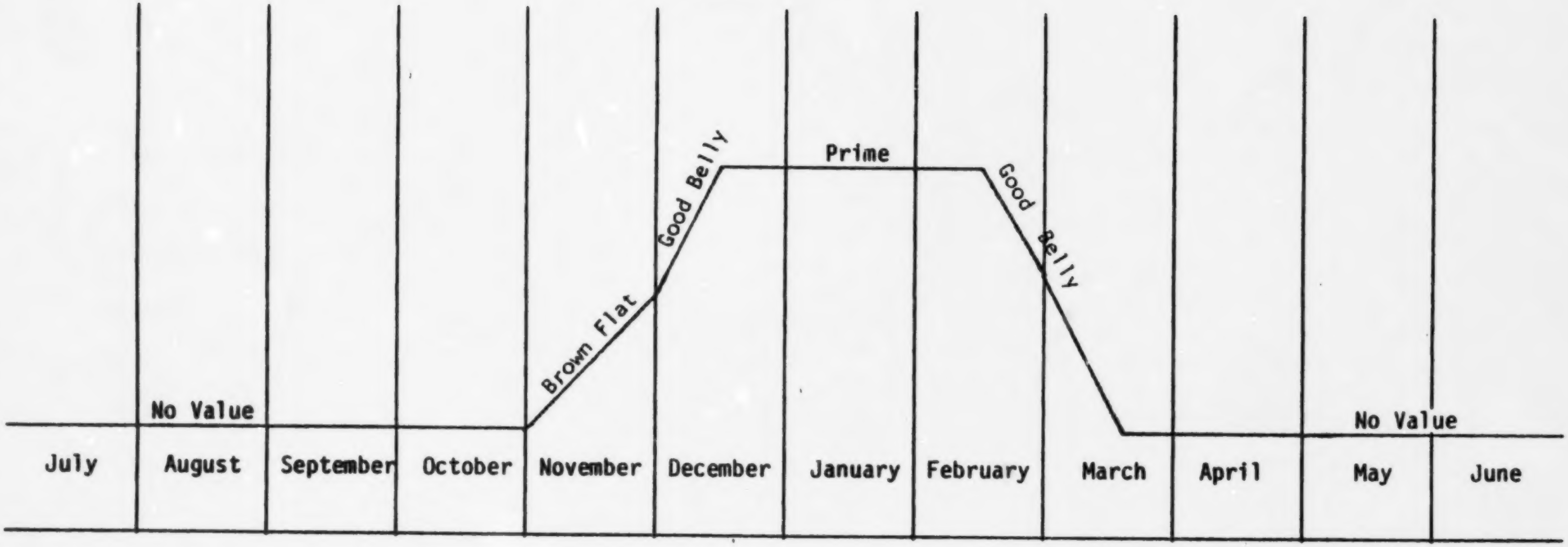
Desirable Features

- Long, heavy, silky fur



BOBCAT

Size	Desirable Features
Small Large	Pale, silky fur on stomach. Clear, with distinct spots.



RED FOX

Sizes

Small	27" or under
Medium	27" - 30"
Large	30" - 35"
Extra-Large	35" or over

Colours

A - Dark Red
B - Red
C - Pale

Pelt Value Discounts

Heavy	Basis
I - II's (SI Flat)	-10%
SI Flat)	-20%
II - Weak	-40%
Lo II	-60%
III	-80%
IV	-90%

COYOTE

Sizes

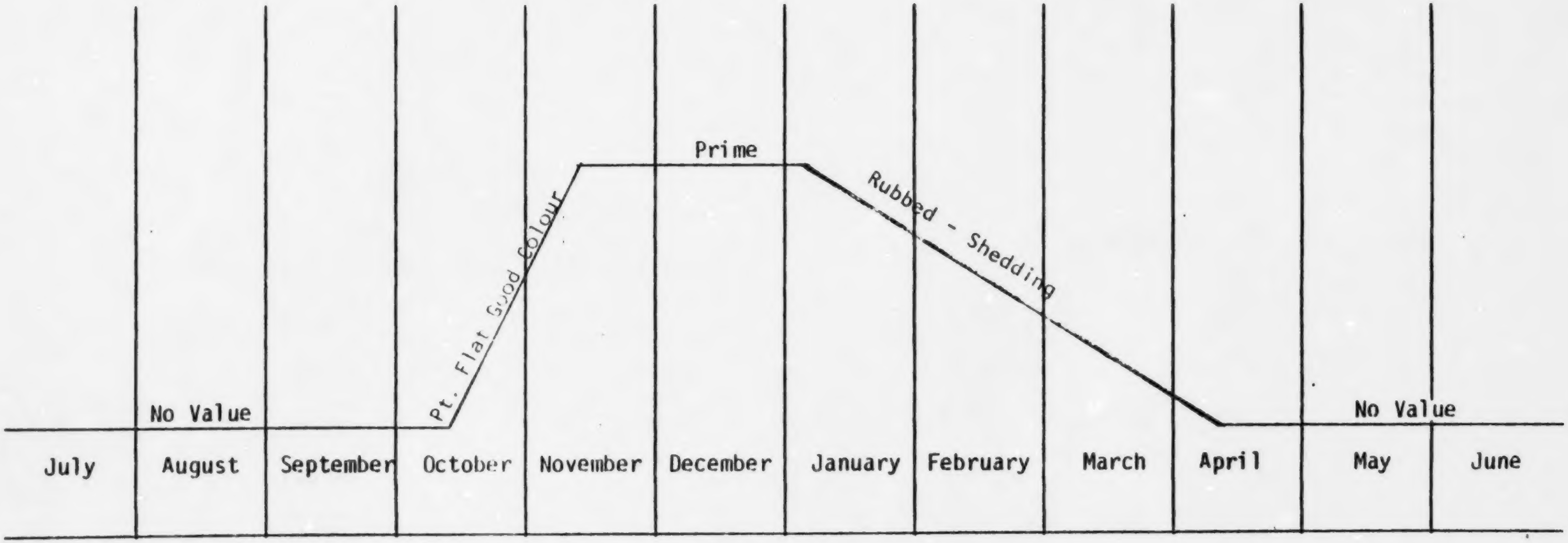
Small	36" and under
Medium	36" - 42"
Large	42" and over

Colours

A - Pale
B - Brown
C - Rde-Tawny
D - Dark

Pelt Value Discounts

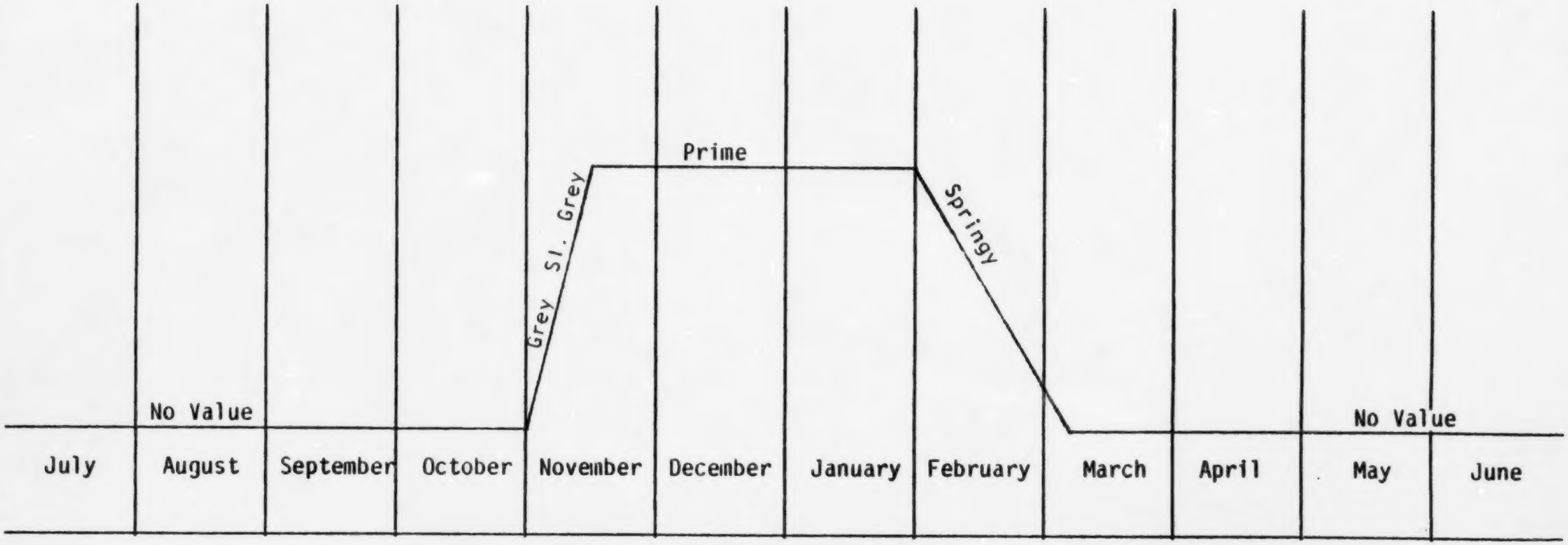
I & II	Basis
I & II Slight Coarse	-10%
Coarse	-20%
II's	-40%
Lo II's	-60%
III's	-80%
IV's	-90%



ERMINE

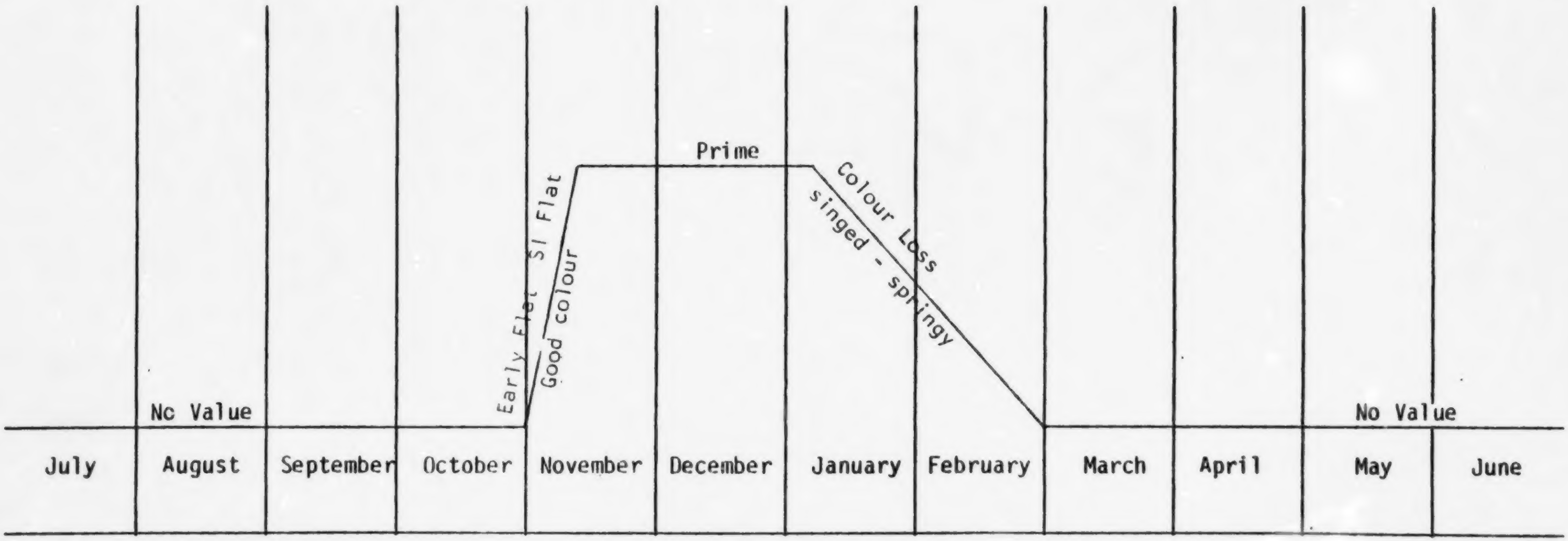
Sizes	
Length	
Small	9 1/2" or under
Medium	9 1/2 - 10"
Large	10 - 13"
Extra Large	13" and over

Pelt Value Discounts	
I & II	Basis
II	-20%
SI Damaged	-40%
Damaged	-90%



FISHER

Size		Colours	Desirable Features	Value Discounts
Length		Dark	Clear color	Rusty
Small	25" or under	Brown	Silky	Coarse
Medium	25" - 28"	Pale	Clean	Boardy
Large	28" or over			Damaged



ARCTIC FOX

Sizes	
Small	22"
Medium	24"
Large	27"
Extra Large	30"

Desirable Features

Clear, white fur

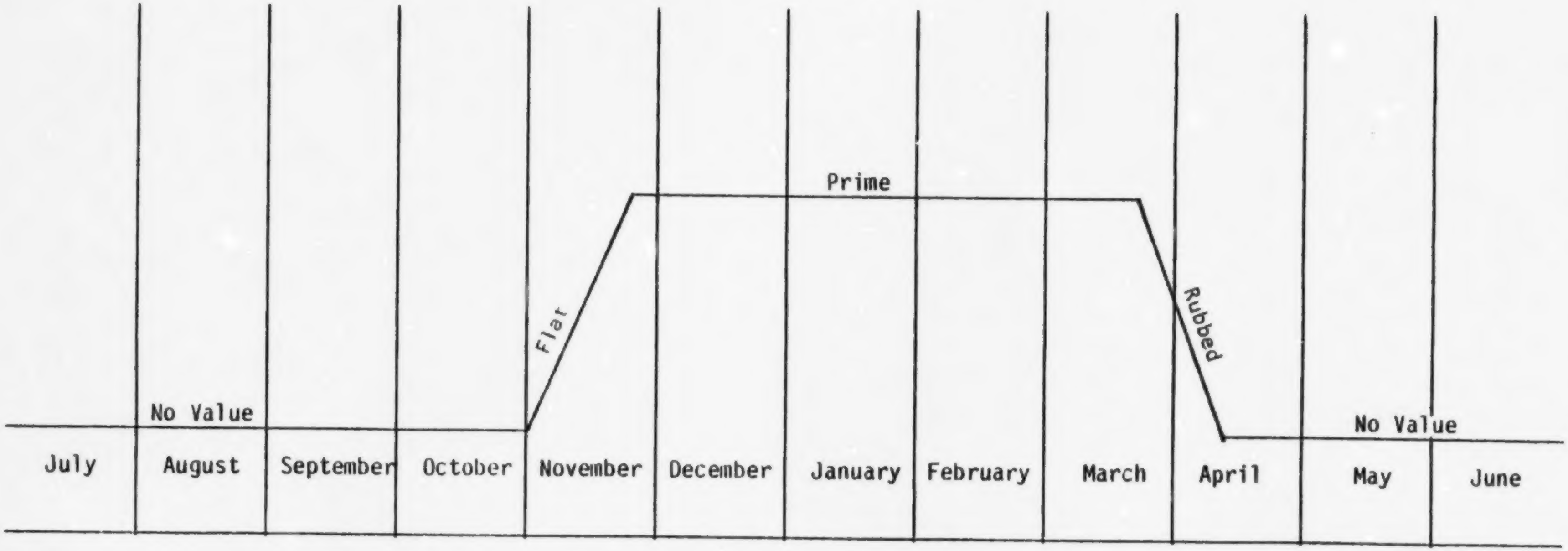
Clean and silky

Pelt Value Discounts

Stained fur

Rubbed

Damaged



LYNX

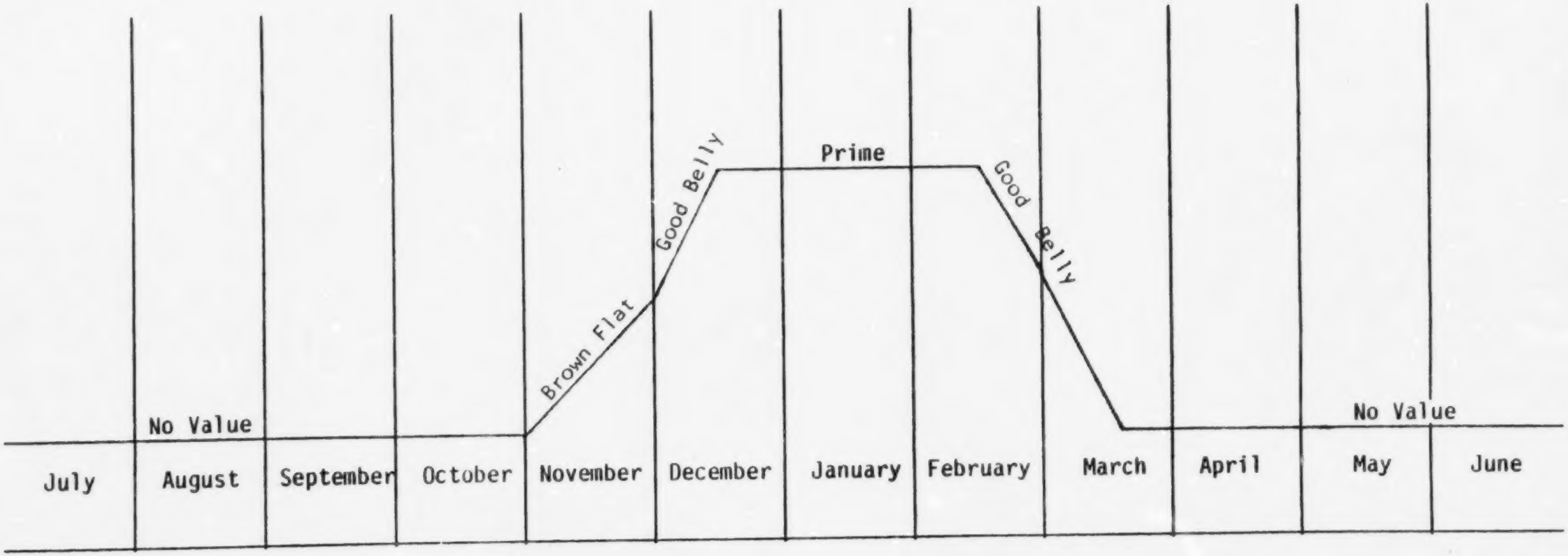
Size	
Small	31" and under
Medium	31 - 35"
Large	35 - 39"
Extra-large	39" and over

Pelt Value Discounts	
Heavy	Basis
Medium	-10%
Flat	-20%
II's	-30%
Early Flat	-30%
Spring Necks	-40%
Springy	-50%
Low II's	-75%
III's	-90%
IV's	-no value

Colours

Back:
- Pale
- Brownish
- Brown

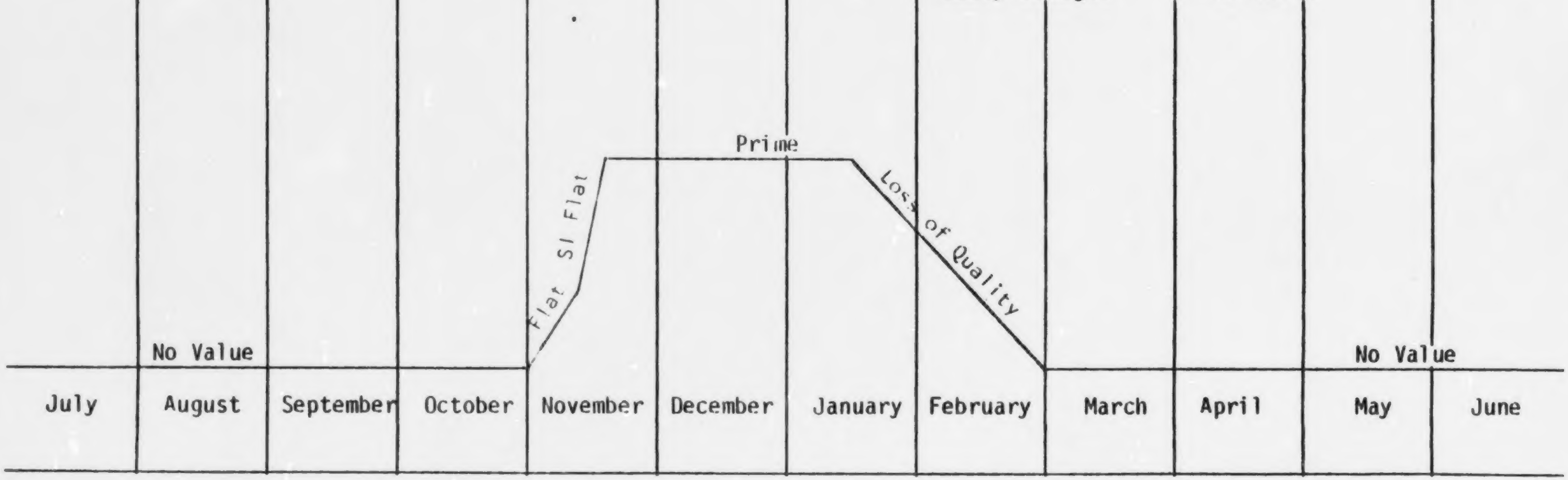
Bellies:
- Clear
- Brownish
- Brown



MARTEN

Sizes	
Length	
Small	18" and under
Medium	18 - 21"
Large	21 - 24"
Extra Large	24" and over

Pelt Value Discounts	
Dark I & II's	Basis
Dark Brown I & II's	-10%
Brown I & II's	-30%
Reddish I & II's	-40%
Slight Blue)	
II's)	-30%
Flat)	
Springy II	-60%
Quality II's	-50%
Low II's	-90%
III)	-no value
IV)	
Bitten	-50%
Sl Damaged	-50%
Damaged	-80%
Tainted)	
Badly Damaged	-no value



WILD MINK

Sizes

Length	
Small	18" and under
Medium	18 - 21"
Large	21 - 24"
Extra Large	24" and over

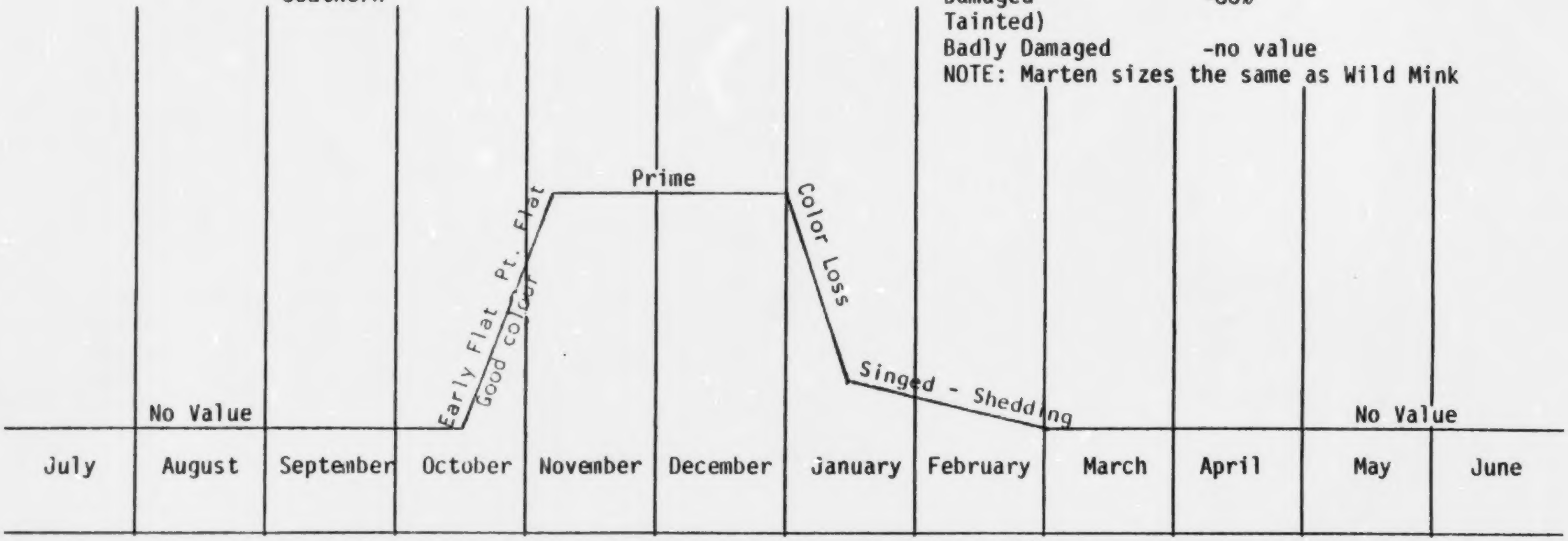
Sections

Northern
Western
Southern

Pelt Value Discounts

Dark I & II's	Basis
Dark Brown I & II's	-10%
Brown I & II's	-30%
Reddish I & II's	-40%
Slight Blue)	
II's)	-30%
Flat)	
Springy II	-60%
Quality II's	-50%
Low II's	-90%
III)	-no value
IV)	
Bitten	-50%
SI Damaged	-50%
Damaged	-80%
Tainted)	
Badly Damaged	-no value

NOTE: Marten sizes the same as Wild Mink



MUSKRAT

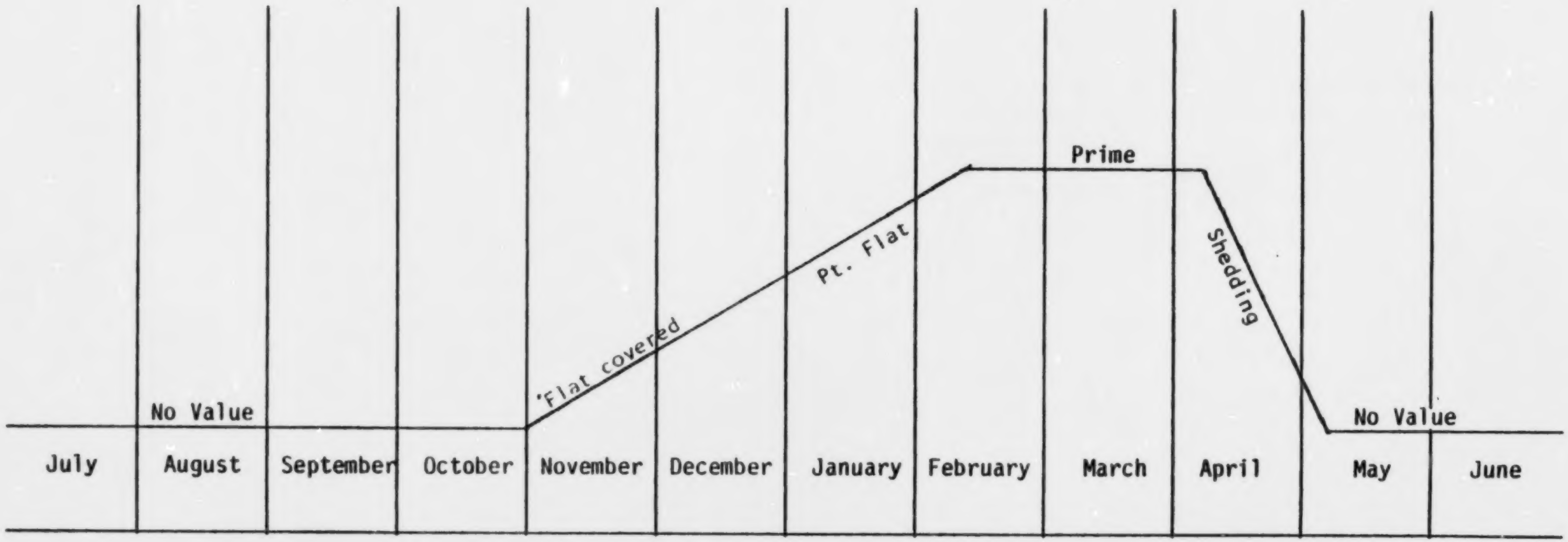
Sizes - Length	
Small	14" and under
Medium	14 - 16"
Large	16 - 18"
Extra Large	18" and over

Desirable Features

Thick, heavy fur
Heavy, full pelt
Clear color

Value Discounts

Thin or papery pelt
Flat
Damaged
Scraped (too much flesh removed, no saddle)



OTTER

Sizes	
Length	
Large	35" - 38"
Ex-Large	38" and over

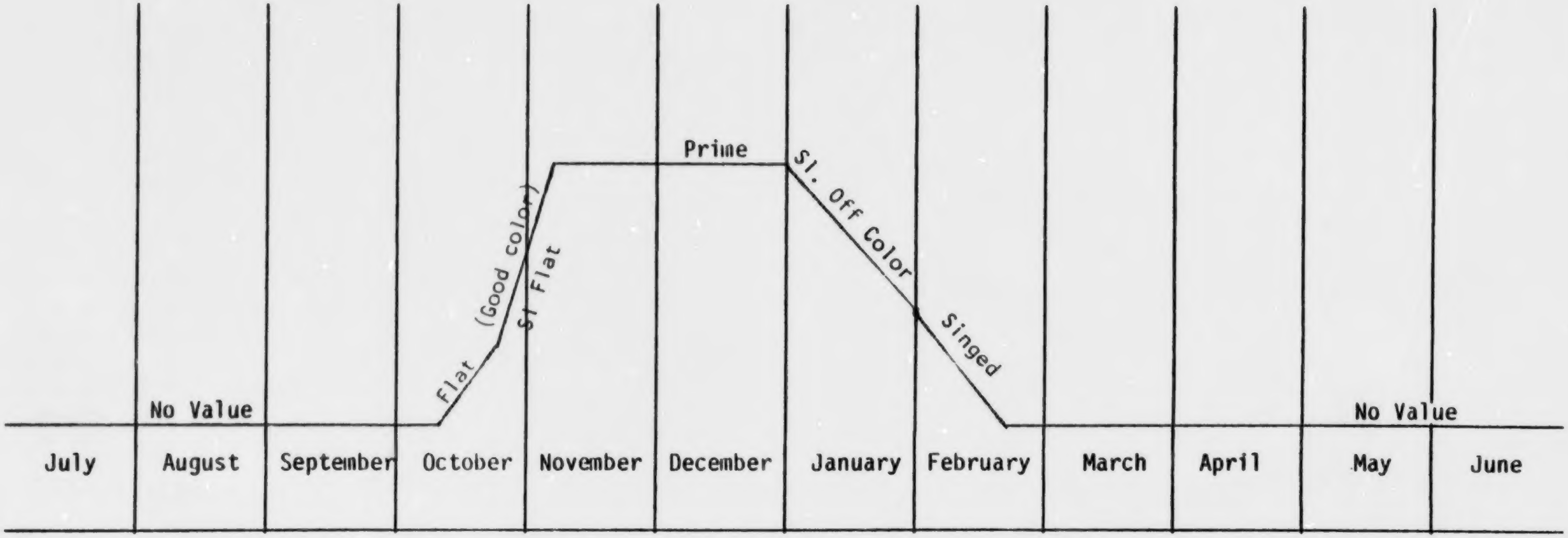
Colors

Dark

Dark Brown

Brown

Pelt Value Discount	
Dark I & II's	Basis
Dark Brown I & II	-10%
Brown I & II	-20
II's	-25%
Flat	-25%
Springy	-30%
Sl. Singed	-30%
Singed	-40%
Low II's	-60%
III's	-90%



RACCOON

Sizes - Length	
Small	22"
Medium	24"
Large/Medium	26"
Large	30"
Extra Large	32"
Extra, Extra Large	34"
Extra, Extra, Extra Large	35" and over

Desirable Features

Clear

Silky

Pelt Value Discounts

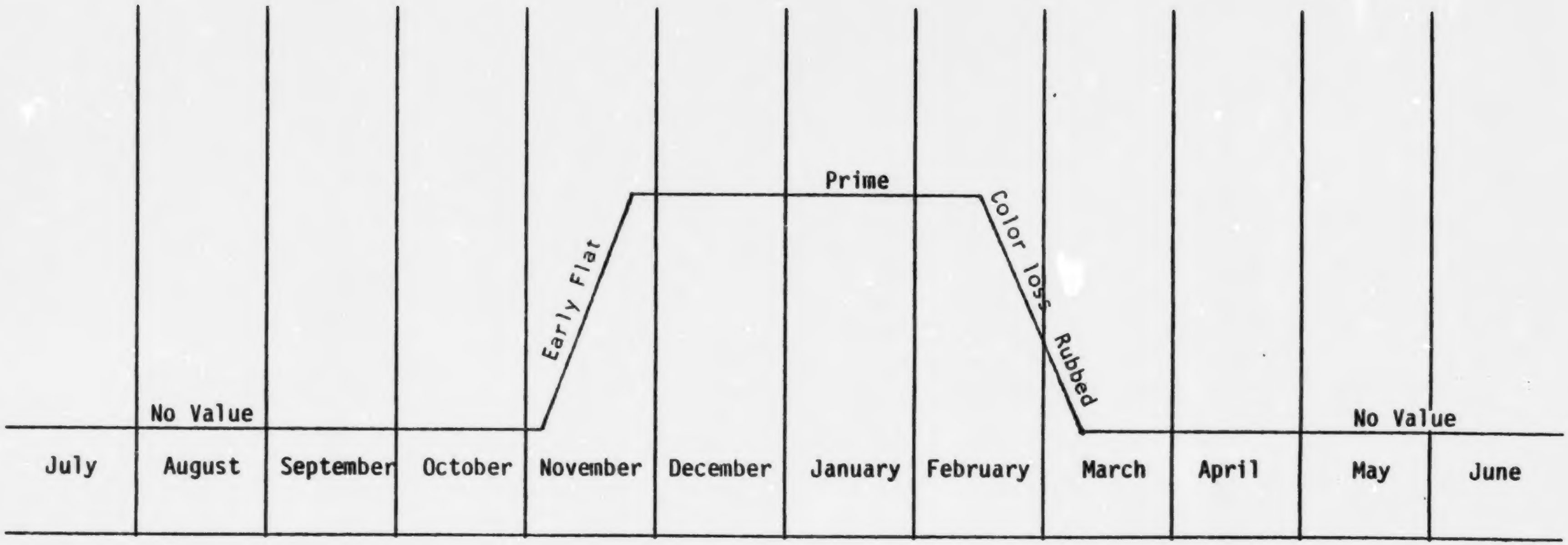
Off colorur

Flat

Coarse

Rubbed

Damaged



SKUNK

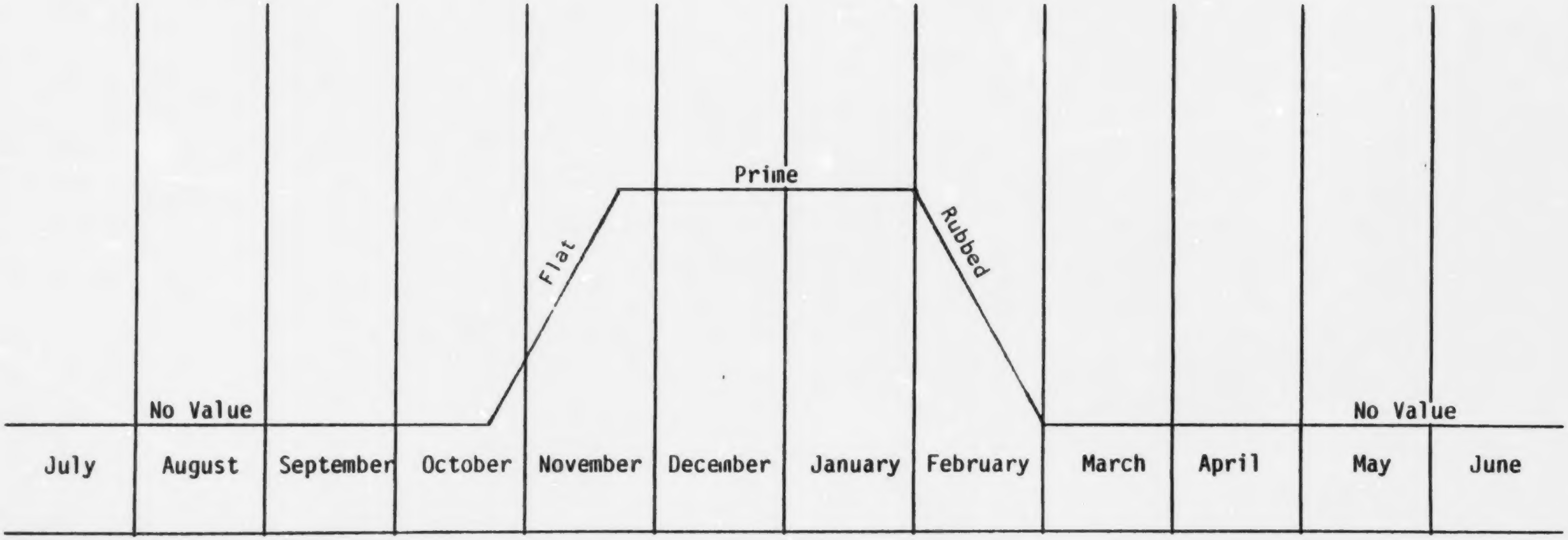
Sizes	
Length	
Small	19"
Large	19 - 23"
Extra Large	23" and over

Pelt Value Discounts

- Fur flat
- Rubbed
- Damaged

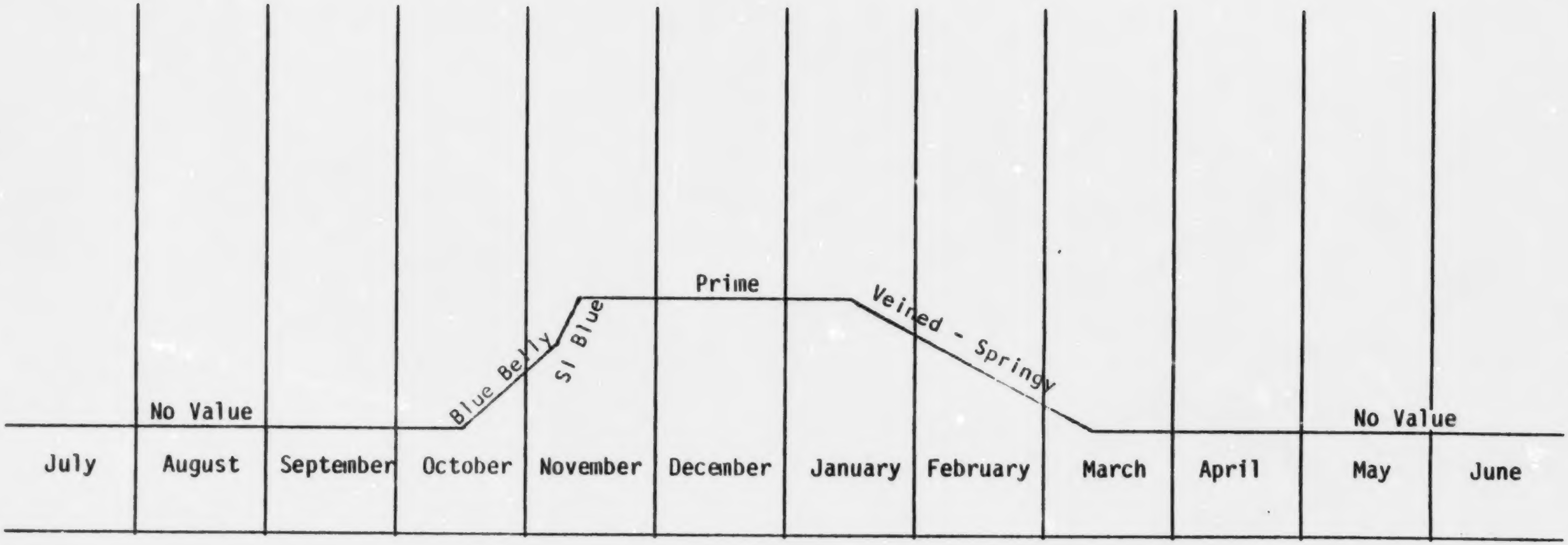
Desirable Features

- Prime
- Clean
- Well fleshed
- Silky fur



SQUIRRELS

Pelt Value Discounts	
I & II	Basis
SI Damaged) SI Blue Belly)	-20%
II	-50%
Damaged	-60%
III	-80%
IV	-90%



TIMBER WOLF

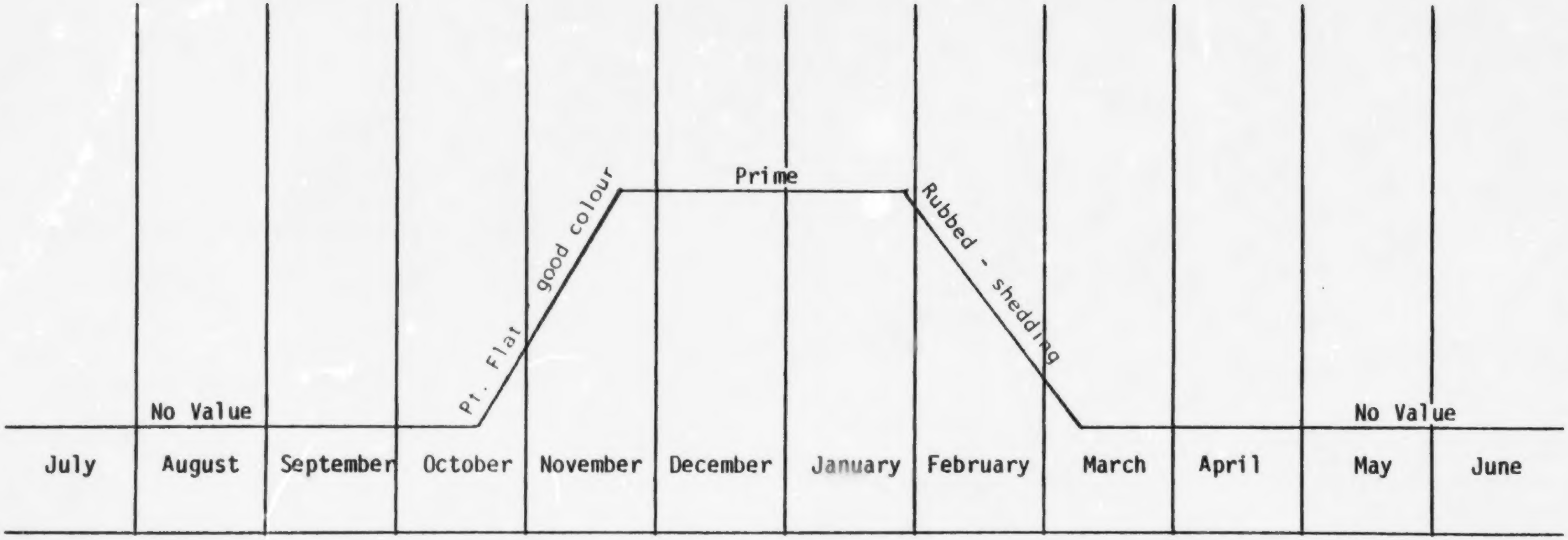
Sizes	
Small and medium	54" and under
Large	54" - 60"
Extra Large	over 60"

Pelt Value Discounts

Coarse
Flat
Rubbed
Damaged
Lips removed
Ear cartilege left in

Desirable Features

Clear colour
Long, silky fur
Pale



WOLVERINE

Sizes	
Length	
Medium and Small	under 32"
Large	32" - 35"
Extra Large	35" - 38"
Extra, Extra Large	over 38"

Color

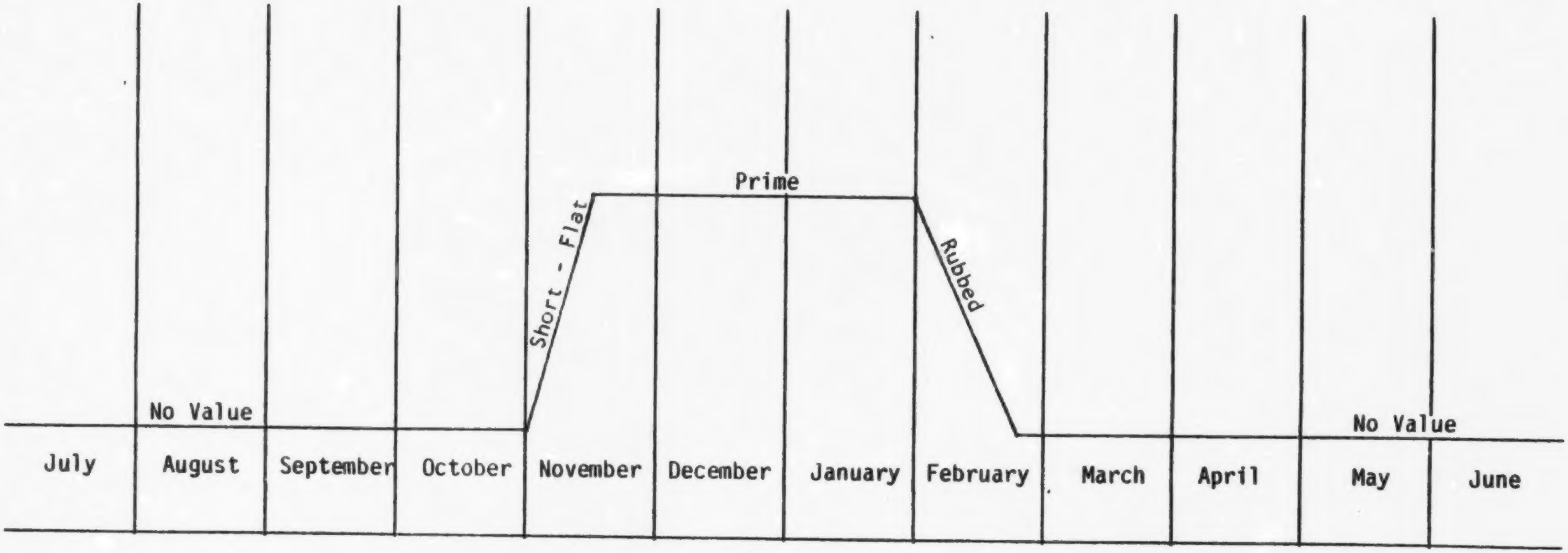
- Dark
- Long
- Silky

Desirable Features

Large, darker type with with long, silky fur and good contrast to the lighter marking on sides with claws on the pelt.

Pelt Value Discounts

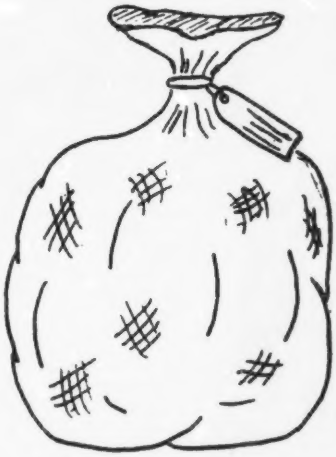
- Short fur
- Rubbed
- No claws
- Coarse fur
- Damaged
- Pale color



SHIPPING FURS

Trappers wishing to ship furs should be aware that time spans between delivery date of the fur and the actual sale of furs can result in furs deteriorating if improperly handled or cared for. The following points will assist you when shipping furs:

1. Pelts which are to be shipped should be free of dirt and grease and absolutely dry.
2. Place pelts in a burlap bag of woven matearial that breaths or a cardboard box for protection. Do not ship in air-tight plastic bags or containers as this can result in sweating and mildew growth. Suitable bags are generally available from the fur depots, free of charge.
3. Open style pelts should never be folded as the skin will be permanently creased and could result in cracking during the dressing process. They should be stacked fur to fur and leather to leather, matching sizes as near as possible, to prevent the edges from getting stained or greasy. Any other fur should not be allowed to come in contact with the leather side of a pelt. Open style pelts may be rolled if absolutely necessary, but this practice should be avoided as the roll is difficult to work out and is a nuisance.
4. Cased style pelts (fur out) may be folded if necessary but it is best to ship flat where possible.
5. Cased pelts (fur in) should not be folded or rolled. Ship flat. *Otter, especially, should never be folded.
6. If rope or cord is used to bind the bundle, put cardboard under it to prevent the rope "biting" into the pelt and leaving permanent marks.



7. Place a shipping tag inside the bag or box, sew or fasten it closed (being careful not to sew through the pelt), and attach a second tag to the outside of the parcel. (Most shipping tags are designed to betorn in half for this purpose.)

8. The tags should be completely filled out and include the following information:

   - name
   - address and postal code
   - parcel number and number of packages shipped
   - contents - number and species
   - trapping licence number

   NOTE: refer to the illustration of a sample shipping tag on the following page.

9. If fur is being shipped directly out of the province, the trapper must obtain an export permit from a Wildlife Branch Office and enclose it with his shipment. (If this is not done, the fur will be returned to the trapper collect.)

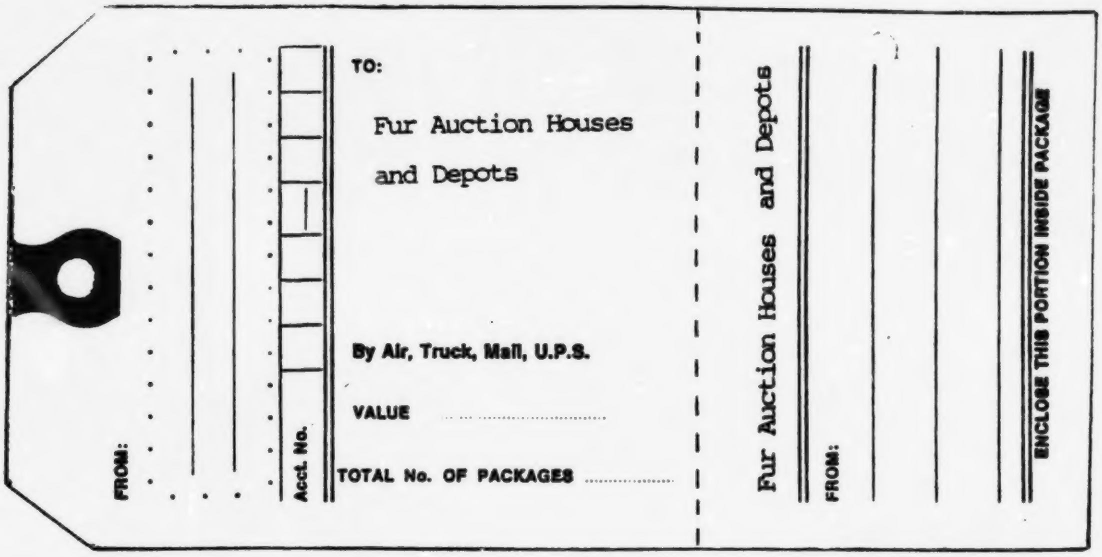
10. It is best to make bundles of a convenient size and weight for handling by one person.

11. Keep copies of all statements sent with the parcels.

12. Beaver castors and oil glands should be rolled up in paper and put in a paper or cloth (not plastic) bag. They may then be enclosed with the fur bundle or shipped in a separate package.

Fur Sable and Fisher
of the finest quality,
and craftmanship
Showing at Canadian International
Fur Fair Montreal

SAMPLE OF SHIPPING TAGS AND RECEIVING RECORD



FROM:

Acct. No.

TO:

Fur Auction Houses
and Depots

By Air, Truck, Mail, U.P.S.

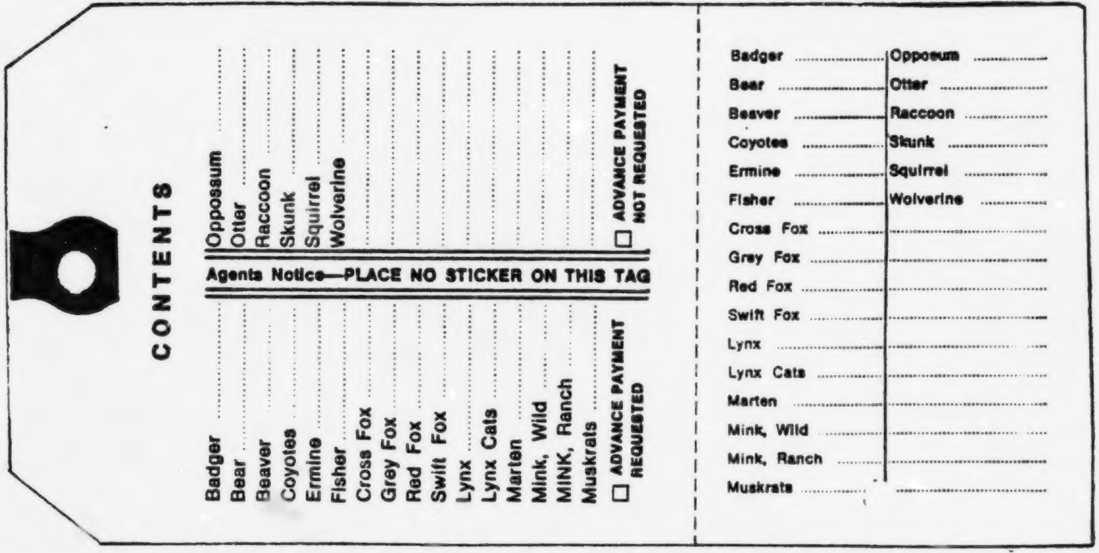
VALUE ....

TOTAL No. OF PACKAGES ....

Fur Auction Houses and Depots

FROM:

ENCLOSE THIS PORTION INSIDE PACKAGE



CONTENTS

Badger ......
Bear ......
Beaver ......
Coyotes ......
Ermine ......
Fisher ......
Cross Fox ......
Grey Fox ......
Red Fox ......
Swift Fox ......
Lynx ......
Lynx Cats ......
Marten ......
Mink, Wild ......
MINK, Ranch ......
Muskrats ......

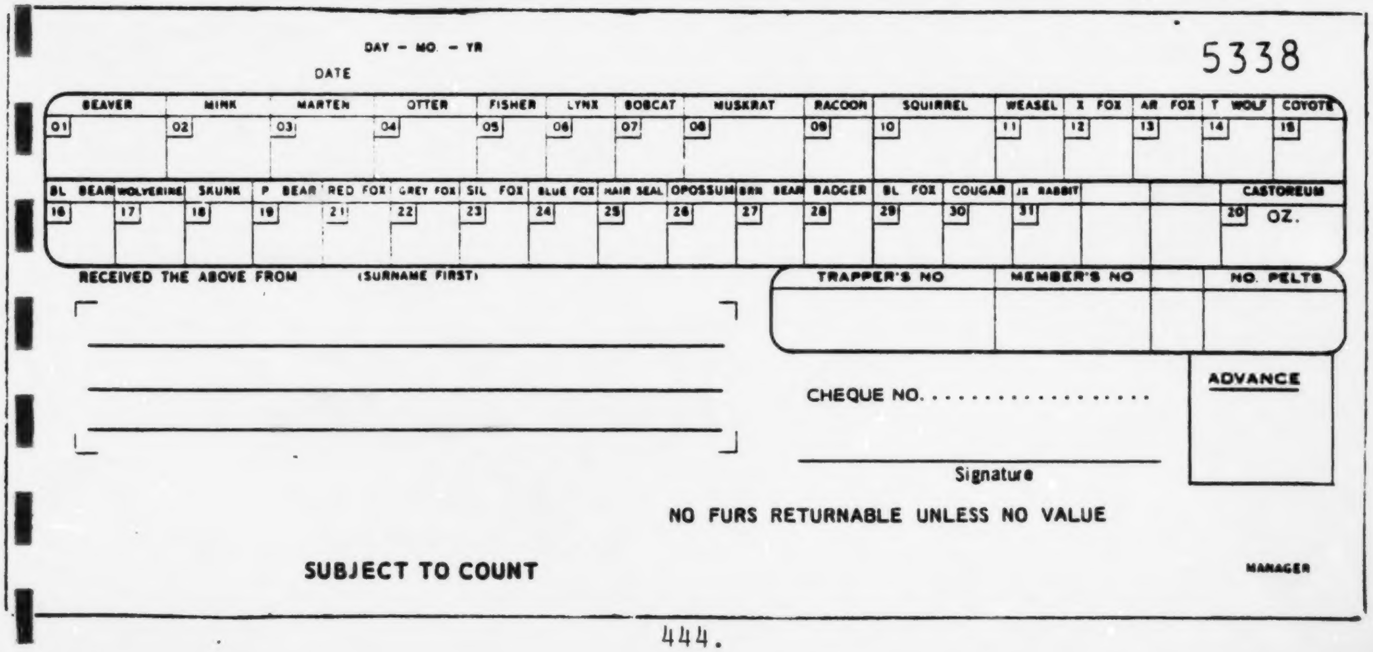
☐ ADVANCE PAYMENT REQUESTED

Agents Notice—PLACE NO STICKER ON THIS TAG

Oppossum ......
Otter ......
Raccoon ......
Skunk ......
Squirrel ......
Wolverine ......

☐ ADVANCE PAYMENT NOT REQUESTED

Badger	Oppossum ......
Bear	Otter ......
Beaver	Raccoon ......
Coyotes	Skunk ......
Ermine	Squirrel ......
Fisher	Wolverine ......
Cross Fox	
Grey Fox	
Red Fox	
Swift Fox	
Lynx	
Lynx Cats	
Marten	
Mink, Wild	
Mink, Ranch	
Muskrats	



DAY – MO. – YR
DATE

5338

BEAVER	MINK	MARTEN	OTTER	FISHER	LYNX	BOBCAT	MUSKRAT	RACOON	SQUIRREL	WEASEL	X FOX	AR FOX	T WOLF	COYOTE	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
BL BEAR	WOLVERINE	SKUNK	P BEAR	RED FOX	GREY FOX	SIL FOX	BLUE FOX	HAIR SEAL	OPOSSUM	BRN BEAR	BADGER	BL FOX	COUGAR	JK RABBIT	CASTOREUM
16	17	18	19	21	22	23	24	25	26	27	28	29	30	31	20 OZ.

RECEIVED THE ABOVE FROM (SURNAME FIRST)

TRAPPER'S NO	MEMBER'S NO		NO. PELTS

CHEQUE NO. ....

ADVANCE

Signature

NO FURS RETURNABLE UNLESS NO VALUE

SUBJECT TO COUNT

MANAGER

Survival

and

First Aid

Lesson Objectives

To provide information to the student on:

1. Basic First Aid and Survival as it relates to trapping.

Survival

Introduction

Survival is the ability to cope with emergency conditions that occur when in the outdoors. Knowing how to cope with emergencies is essential to trappers Basic survival techniques should be learned and practiced by every trapper.

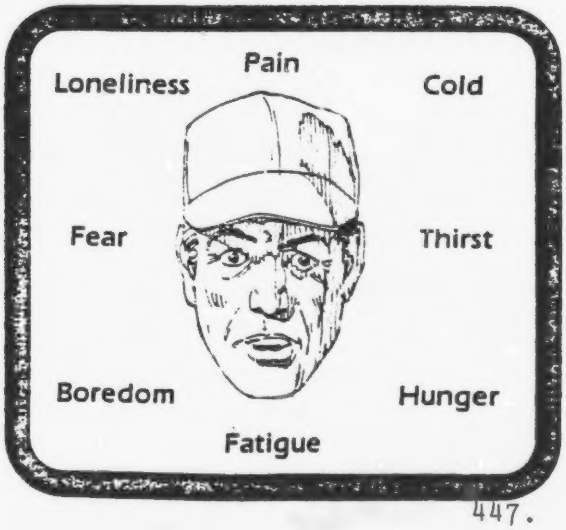
Fire drills are a regular practice, even though a real fire seldom happens. But should there ever be a fire, you'll know what to do. Similarly, practising survival techniques makes good sense. If an emergency happens while hunting, you'll know what to do. You'll be able to cope with the situation if you become lost or disabled.

A survival situation usually lasts less than 72 hours and seldom longer than five days. Searches can take time, however, and you'll need to rely on your own resources to survive until help comes.

If you're in trouble, stay calm. Accept the fact that immediate help may not be available. Resist the urge to travel further seeking safety if you're lost. Stay put! Collect your thoughts and put the survival procedure outlined in this manual into practice. This procedure is designed to sustain life with as little discomfort as possible until help arrives.

Factors Affecting Survival

Pain, cold, thirst, hunger, fatigue, boredom, loneliness and fear are feelings we've all had before, but never so strongly as when we must survive a serious emergency situation. No matter how severe these feelings are, they can be overcome when you know how to deal with them.



Pain

Pain is nature's way of telling a person that something is wrong. Attend to any injuries immediately, using appropriate first aid treatment (see First Aid chapter).

If your mind is busy making plans to cope with your situation, you'll feel less pain and may even forget about it for a while. If you give in to the pain, you might stop trying to survive.

Cold

Cold is a serious threat to survival. The victim of cold often loses the ability to function normally. When you are very cold, it's hard to think about anything other than becoming warm.

Exposure to cold, wetness and wind — even in temperatures that are not considered severe — can lead to hypothermia (see Hypothermia chapter).

To survive in the outdoors, a trapper must find ways to maintain his body temperature by staying dry, building a fire and constructing a shelter to protect himself from the weather.

Thirst

Don't think about how thirsty you are. A person can survive for several days without water if he's in normal health.

Instead, keep your mind active and busy with plans for coping with the situation at hand. Such activity may even make you forget for a while about how thirsty you are. Later, you can easily locate water near your survival camp or collect it when it rains or snows.

Hunger

Though hunger will make you feel uncomfortable, it is not a serious factor in most survival situations. Your body fat will supply energy to enable you to survive 30 days or more if your health is normal.

Fatigue

When you are tired you do not think clearly and can become careless. Extreme fatigue can even destroy a person's desire to survive.

Though overexertion is the usual cause of fatigue, lack of sleep and boredom may contribute to it. Try to rest as much as possible and avoid over-exertion. By making a comfortable shelter, you will be able to sleep soundly and avoid fatigue.

Boredom and Loneliness

Boredom and loneliness creep up on you when nothing happens and nobody comes to rescue you. You may act irrationally and your actions could make matters worse.

Your reaction to boredom and loneliness can often be more of a problem to your survival than any physical factors such as pain, cold, thirst or hunger.

Boredom and loneliness can be overcome by:

1. Making decisions and acting on them.
2. Adapting to your situation and improvising solutions to problems.
3. Tolerating solitude.
4. Avoiding panic and keeping calm.
5. Thinking positively and planning ways to overcome problems.
6. Being patient.
7. Keeping your hands busy — even by whittling a stick.

Fear

Fear is a normal reaction. Everyone is afraid. Fear affects the way you behave and, if not overcome, it can become your greatest obstacle to survival. In a survival situation, you may experience.

1. Fear of death
2. Fear of the unknown
3. Fear of animals
4. Fear of being alone
5. Fear of darkness
6. Fear of weakness
7. Fear of punishment
8. Fear of ridicule
9. Fear of discomfort
10. Fear of personal guilt

The best way to deal with these ten basic fears is to prepare yourself mentally to:

(a) identify which fears you are feeling; and

(b) try to understand why you are afraid and use common sense to deal with and overcome each particular fear.

Fear of Death

Until faced with a life or death situation, most people seldom think about death. Provided you follow the survival procedure outlined in this chapter, your chances of staying alive are excellent.

Fear of the Unknown

When an unexpected emergency arises, the immediate questions which flash through a person's mind are: "What is going to happen to me?" "Will they find me?"

This is normal. Fear of the unknown is by far the most common fear of any we experience. Practising survival skills and thinking about how to cope with new and unusual situations should they arise will prepare you to handle most "unknowns". Reading other people's accounts of their survival experiences and trying to place yourself in their shoes will help to prepare you to deal with this fear.

Fear of Animals

Most animals are wary of humans and will stay out of their way. Learning about wildlife and their habits will help you overcome this fear. Don't let your imagination conjure up dangers from wildlife that are not real.

Realize, for example that wolves are curious animals but they will not attack you. Despite all kinds of stories about wolves, no person has ever been attacked and killed by a wolf in North America. Making noise around your camp and keeping a fire going at night will make other animals such as bears shy away from you.

You should learn to view wildlife positively. They can be a potential source of food to you and they also provide interesting company.

Fear of Being Alone

We are seldom alone in our daily lives. Being alone is almost an unknown experience for many. Solitude and solving problems for ourselves is something every outdoorsman must learn to cope with through solitary outdoor experiences. Spend time on your hunting and fishing trips getting away from your companions to learn what it's like to be alone in the outdoors.

Fear of Darkness

When it is dark, we depend more on hearing than seeing things around us. We often hear sounds in the darkness and imagine all sorts of threats to us. Most of us have experienced this fear at some time. Practicing being alone in the dark will help overcome this fear.

Fear of Weakness

People are stronger than they realize. Countless experiences have proven that people acting under stress can accomplish superhuman tasks. Be confident that you can cope with any physical or mental problem if you think about it logically. Plan a step-by-step approach towards solving the problem and then act.

Fear of Punishment

Because most of us are used to meeting time commitments, such as being home for supper, we get concerned about being late. When you're lost and alone, don't worry about missing appointments. Being late will alert your friends to the fact that you are lost and they will begin to search for you.

Fear of Ridicule

Normally, you'll be embarrassed by getting yourself lost and you'll worry about what your companions will think about you. You're afraid they'll think you are dumb for getting into such a predicament. Don't worry — each and every one of them will likely have been in a similar situation at one time and they'll understand how it can happen to you.

Fear of Discomfort

If you follow the basic steps of survival outlined in this chapter, there is no reason why you should experience severe discomfort. You may actually find that a survival experience can be exciting and pleasurable.

Fear of Personal Guilt

In a survival situation, blaming yourself for your predicament will accomplish nothing. It is not what you did wrong to get into trouble that counts. It's what you do right from now on that will make the difference. Think positively at all times.

Helplessness and hopelessness are two factors which increase fear. Through training and putting into practice the knowledge of survival in this manual, your fears will be overcome by confidence in your ability to handle a survival situation.

In summary:

1. Recognize that fear is a very normal reaction.
2. Be alert to physical dangers, recognize potentially dangerous situations, then plan to avoid them.
3. Subdue fears by simply keeping mentally and physically busy.
4. Be realistic, think positively and do not let your imagination get carried away.
5. Pray — prayer has proved to be a very effective tool to survival. Under stress conditions, you are at the mercy of your mind.

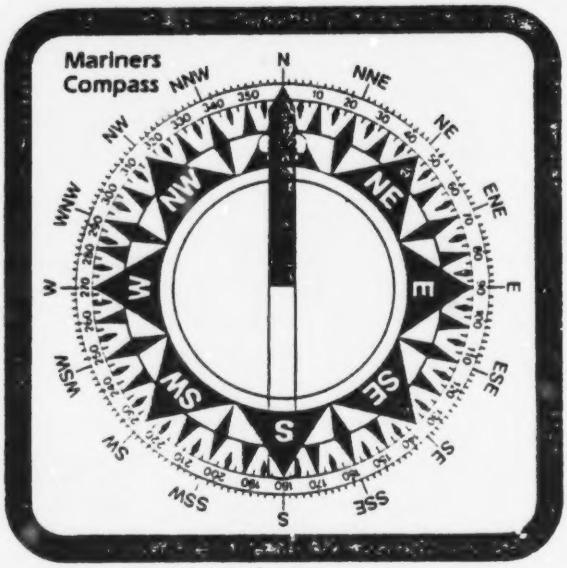
Compass and Maps

Compasses

There are many types of compasses available. They range from a simple pocket compass which shows general directions, to complex models with sights and sighting lines, useful for drawing maps or navigating exactly to specific locations.

A pocket compass is satisfactory when the trapper needs to know north, south, east and west directions to find his destination. There are two types of pocket compass. One has a magnetized needle which pivots at its balance point and swings around the dial. The other has a revolving dial instead of a magnetic needle, which turns as the compass is moved.

A compass dial is divided into 360 degrees, numbered clockwise on the dial. The degree numbers shown on the dial are called azimuth directions. The letter N for NORTH is marked at the 0 degree point on the dial. South is at 180 degrees, east at 90 degrees, west at 270 degrees.



Usually one end of the needle is colored or one end is shaped like an arrowhead so you can tell which end of the needle is pointing to the north.

Do not rely on memory to tell you which end of the needle is the north end. In the confusion which sometimes happens when a person realizes he is lost, or if someone is injured, it is easy to forget which end points north.

If there is any chance you will forget which is the north end of the needle, scratch a mark on it. Write on a piece of tape and tape it to the back of the compass, or inside the cover, "north gray" or "north red" or "north arrow", or whatever applies to your particular instrument.

To tell which end of the needle points north, test it at home on objects and places where you know which is the true direction.

Be sure to hold the compass horizontally and flat. Otherwise the needle may stick or show an inaccurate reading. The compass must be kept away from metal

objects. Stand several feet away from any firearms, axes, or knives when taking a compass bearing. Even a metal belt buckle can distort the needle's action.

When trapping in stormy weather conditions, a compass may be used to guide the trapper back to camp. For example, if the trapper decides to trap in a range of hills about ten miles distant, he would take a compass reading before leaving camp. If the compass showed the direction of the hill is Southwest of camp, he would know that after trapping in the hills, he must travel Northeast from the hills to get back to camp. The direction should be checked at intervals along the way.

Should the trapper, walk several more miles, he must take this into account when reading the compass for directions back to camp. If he had turned to the right when he reached the hills and walked in that direction for several miles, he would then be almost directly west of camp, not southwest as he was on leaving camp. To reach camp, he must now travel east.

General compass directions such as these, although not exact, are accurate enough to direct a hunter who has travelled only a few miles distance, back to the campsite. Following the compass directions will bring him back to the general area where he began his trek and he will then be able to recognize landmarks which tell him exactly where camp is.

When camp has been set up beside a "base-line" such as river, road or railway, the hunter can easily find his way back to camp with a compass. If he is trapping north of the base-line, he knows that as long as he doesn't cross that base-line, all he needs to do to find camp is walk south from where he is and he will be in line with camp.

A compass is best used in combination with a map. The map will show which directions to take to get to a specific location. The compass will keep you walking in the right direction.

Maps

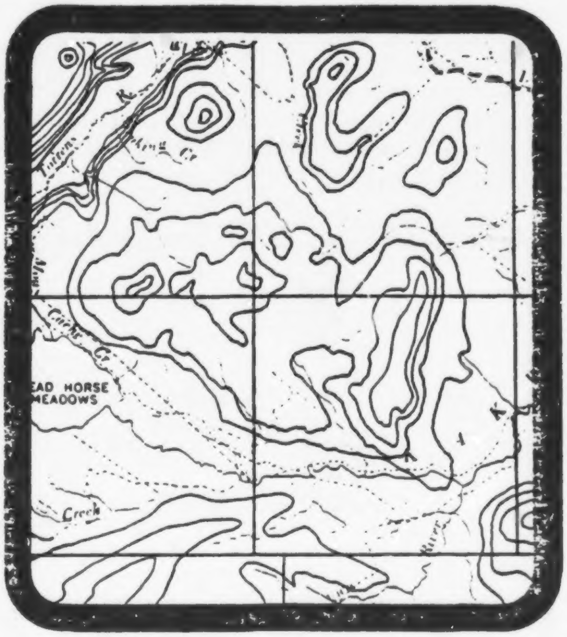
Hunters use three main types of maps for finding their way in wilderness country:

a) printed maps prepared and published by governments or private mapping firms;

b) hand drawn maps prepared by the trapper from his own observations or reliable information from others.

c) Mental maps based on the trappers memory of the direction, approximate distances and turns he made in his travel that day or from previous trips in the area.

Maps tell you where you are in relation to your surroundings. Identify two or more landmarks such as lakes, mountains, ridges or high peaks, which can also be recognized and located on the map. You can then judge where you are in relation to these places.



Use of Maps and Compass

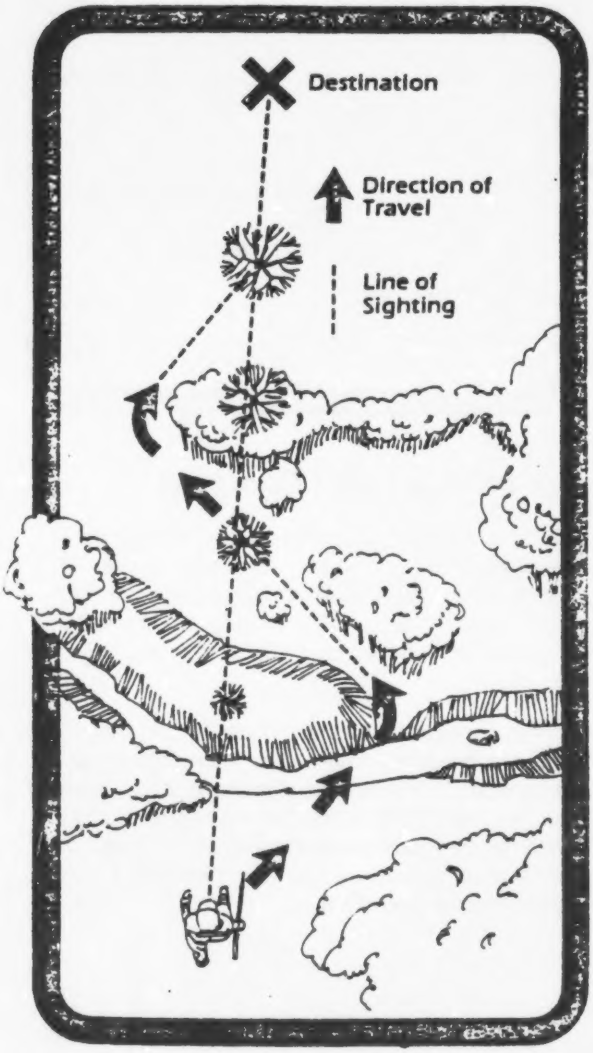
The latitude and longitude lines which form the grid framework of printed maps are aligned with true north. A printed map shows north at the top, with latitude lines forming the top and bottom edges of the map and longitude lines, running true north and south, forming the sides.

A compass points to magnetic north. For this reason, printed maps usually have a declination diagram, or state the degree of declination in the region, in the map margin. DECLINATION is simply the degree of angle formed by the intersection of a line running true north and south (longitude) and another line running toward magnetic north (meridian).

To follow a straight course by compass the trapper should carry the instrument in his hand and refer to it frequently to be sure he stays on course.

Sometimes the trapper will pick out landmarks on the way to his destination, checking his course as each spot is reached. A landmark should be chosen that is on the course of trapper's ultimate destination and one which will be visible until it is reached. On reaching the marker, he chooses another landmark in the distance and checks his bearings again with the map and compass.

In forest, a straight course can be maintained by lining up two trees and walking directly toward them. As the first tree is reached, another tree is lined up, behind and in a straight line with the second. This procedure is repeated each time another of the trees is reached.



Survival Kit

Everyone who goes trapping should take along a personal survival kit. (See chapter on survival). This kit should be small and light and should be carried with you at all times. The heavier you make this kit, the more unlikely you will be to take it along. The best survival kit is one that is small and compact enough to be carried in a pocket of your jacket.

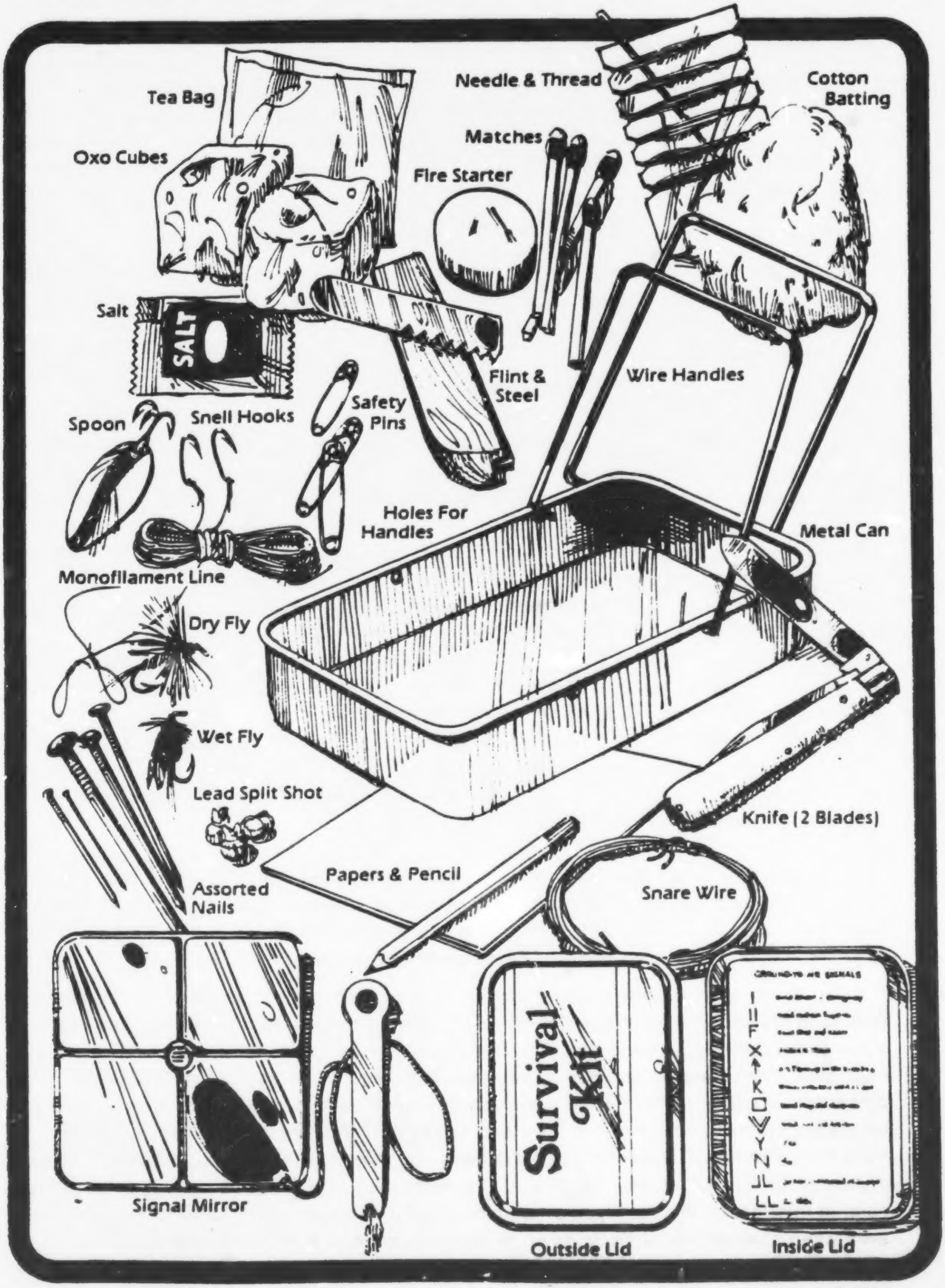
Survival Kit Components

CONTAINER — an empty pipe tobacco can, approximately 3¼ x 4½ inches (8 cm x 11 cm) is a convenient size, which may also be used for cooking.
CONTAINER LID — painted a bright color so it can be found if lost with a ground to air signal card taped inside.
HANDLES — holes should be drilled in the container and handles attached for cooking.
MATCHES — long stemmed, wooden, strike anywhere matches or windproof matches with a striker.
FLINT AND STEEL
FIRE STARTER TABLET — burns for approximately 6 minutes.
ABSORBENT COTTON — excellent tinder, easily ignited with matches or flint and steel.
KNIFE — small pocket knife with 2 blades.
FISHING EQUIPMENT — 2 spoons (red and white Len Thompson #6), 2 dry flies (Royal Coachman), 2 wet flies (Black Gnat), 2 snelled hooks (size 8), 4 lead split shot, 15 yards (4 m) monofiliment line (10 lb./4 kilo) test.
SAFETY PINS — 4 assorted sizes
NEEDLE AND THREAD
NAILS — 4 assorted sizes
PENCIL AND PAPER
SNARE WIRE - stainless steel fishing line
OXO CUBES — 2
TEA BAGS — 1 or 2 small packages
SIGNAL MIRROR — with signalling instructions
TAPE — tape lid to container with 18 inches (46 cm) of waterproof tape.

Items may be added to this list but do not include large amounts of food, cooking pots and other gear you would normally take camping.

Survival Kit

Most trappers use a snowmibile on their trapline and, if the machine breaks down and can't be repaired, they could find themselves a long way from their cabin. For this reason, anyone using a snow machine should have some sort of survival kit.


Tea Bag
Needle & Thread
Cotton Batting
Matches
Oxo Cubes
Fire Starter
Salt
SALT
Flint & Steel
Wire Handles
Spoon
Snell Hooks
Safety Pins
Holes For Handles
Metal Can
Monofilament Line
Dry Fly
Wet Fly
Lead Split Shot
Knife (2 Blades)
Papers & Pencil
Assorted Nails
Snare Wire
Survival Kit
Signal Mirror
Outside Lid
Inside Lid

Ice Travel

Since trapping is conducted during cold weather months, ice travel is a necessity. However, ice should never be considered to be entirely safe, even when temperatures are 50° below zero. Some parts of rivers may always remain open and, even where ice has formed on a river, there may be swift currents underneath, resulting in thin ice. The snow may be quite deep over these areas, thus insulating the ice and allowing the current to erode the ice underneath the snow.

Because ice travel is always dangerous, an individual must take all reasonable precautions while on ice. When walking on dangerous ice, always carry horizontally, a long light pole which can act as a bridge to keep you from falling under the ice and aid in getting you out. This stick can and should be used to jab at suspicious sections ahead, such as areas hidden by the snow.

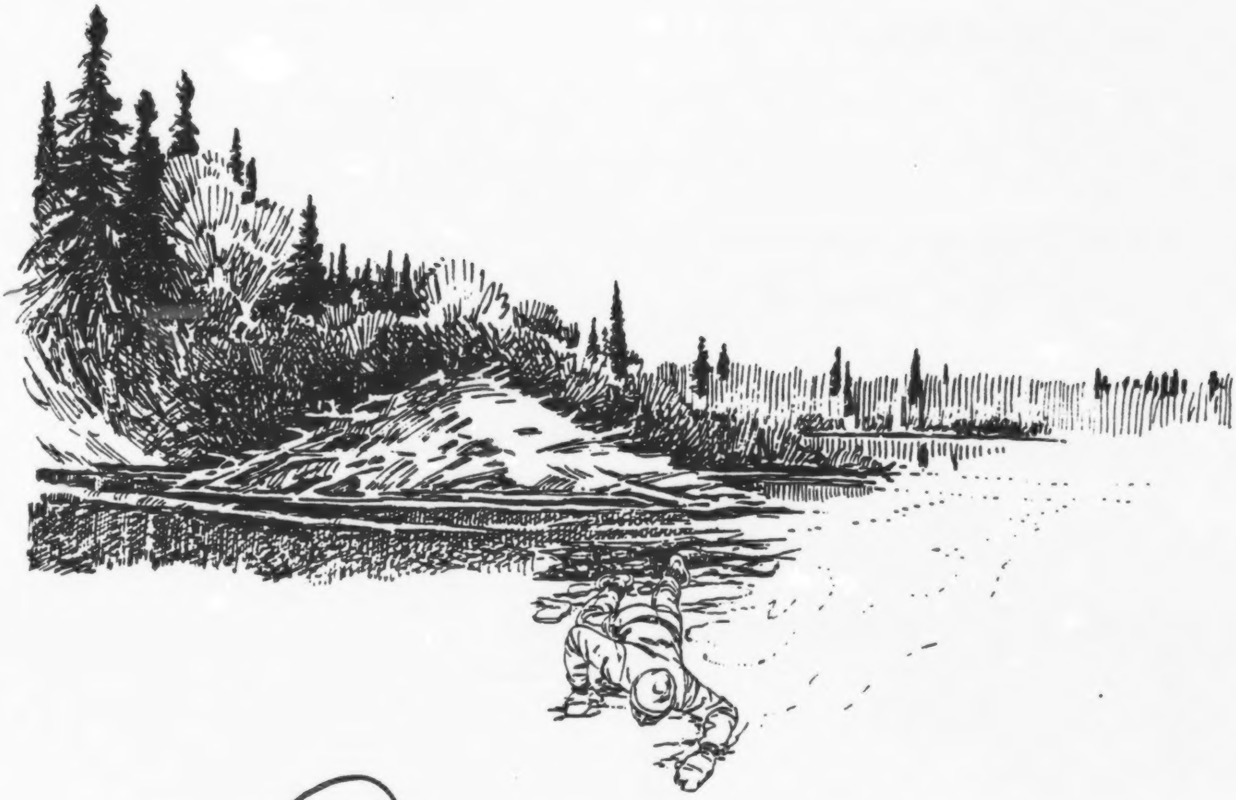
There are three different types of ice -- blue ice, white ice and candle ice.

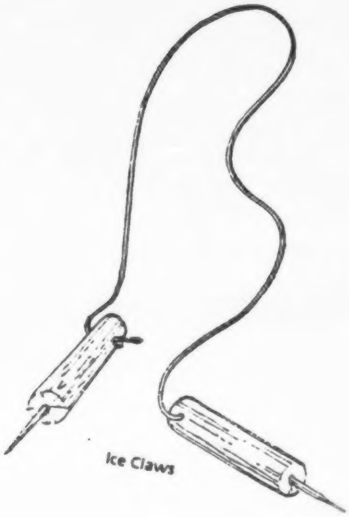
Blue ice forms from freezing water and looks blue when a piece is held up to a light, but black when looking down while walking on it. White ice forms from water mixing with snow (slush) and then freezing, and looks white because of the air bubbles in it. Candle ice results from solid ice decomposing and forming into long verticle needles, when thawing occurs in late winter and spring. This ice sounds like the hissing of a tea kettle when walking on it.

The Ontario Safety League recommends 3" (7.5 cm) of blue ice is safe for one person to walk on and 7 1/2" (19 cm) is needed for a snow machine. As a general rule, white ice is about fifty percent as thick as blue ice. Before travelling on white ice, check the thickness of the blue ice underneath, as there is no general rule on what thickness of white ice is safe. You will need to use you own judgement in deciding when white ice is safe enough to travel on. Usually candle ice under 24" (60 cm) is unsafe and greater than 24" (60 cm) may support one person, but utmost caution and good judgement must be used. In most cases, trappers cannot avoid travelling on this type of ice, especially during spring trapping. Candle ice of sufficient thickness (24" or 60 cm) is fairly safe in the morning, provided it has been subjected to freezing temperatures during the night. Since candle ice is composed of vertical needles, freezing temperatures will freeze the needles together. In order to judge if enough freezing has occurred, you should note whether the night has been clear or cloudy. If cloudy conditions have persisted through the night, it is almost certain the candle ice has not frozen enough to carry your weight. You will need to rely on experience and good judgement to determine if candle ice will carry your weight.

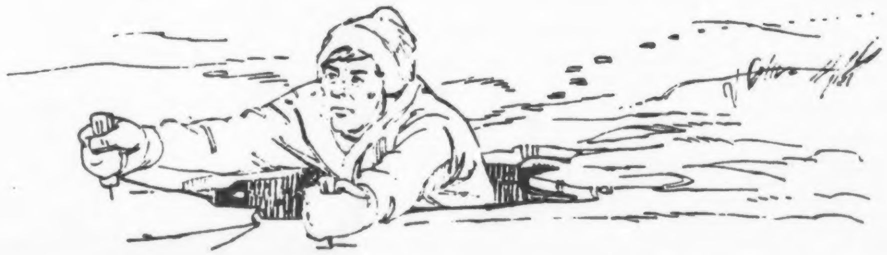
If you fall through ice, **always turn around and climb out at the point where you fell in,** since the ice held you until that point, and ice beyond where you fell in may not hold you. Even if you are facing shore and are close to shore when you fall in, do not attempt to get to shore, as you may drown or die of exposure before reaching it.

If you fall through ice and become thoroughly drenched, get out as quickly as possible. Rolling in dry snow (not wet snow) will absorb some of the moisture. The next step is to get a fire going before your hands become numb. If no shelter is available, use two fires, one at each side. If you have extra clothing available, put these on and get warm. The best procedure would be to have extra clothing and a sleeping bag, in which case you would put on the dry clothes and crawl into the sleeping bag until you are warm. When you do not have extra clothing or a sleeping bag available, you may leave your wet clothes on while you dry them out. By leaving your clothes on they (even wet) provide some protection from the cold. In this regard, the best type of clothing is wool, because it provides more insulation, even when soaking wet, than do down or synthetic materials. Most trappers use a snowmobile for travelling along a trapline, and it is quite easy to carry a sleeping bag along with extra clothing for such an emergency.





Stay off ice that is less than 2 inches (5 cm) thick. If you break through the ice, extend your arms flat on the ice surface and kick your feet to the surface of the water. Try to squirm the upper part of your body onto the ice. Roll quickly to one side away from the edge. You may have to break the thin ice ahead of you to reach ice thick enough to hold your body weight. Once you are out of the water, immediately get to shore and build a fire to warm yourself and dry your clothing.



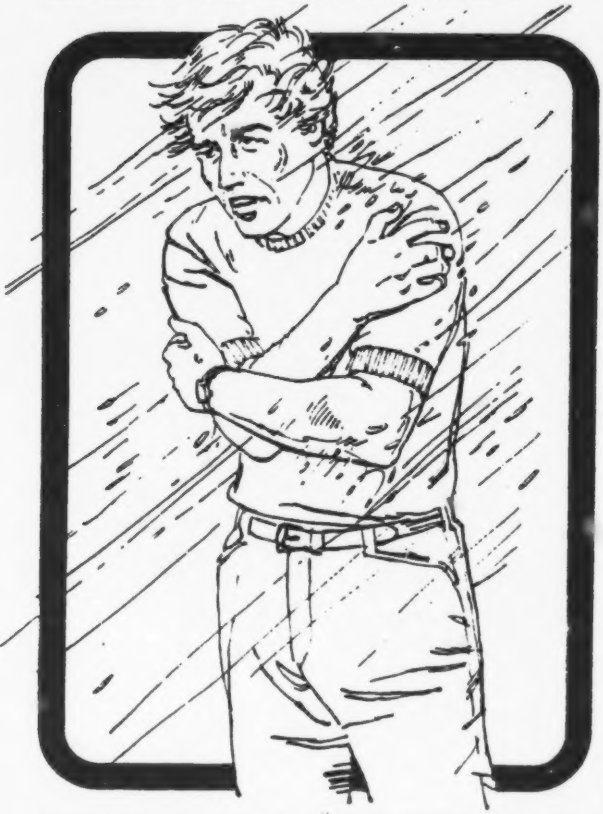
Introduction

Hypothermia is a condition which occurs when inner body temperature drops more than two degrees C. It impairs a person's ability to think and act rationally and can cause death.

Hypothermia is a major cause of death among outdoor recreationists. When a person is said to have died from "exposure", often the actual cause of death was hypothermia.

Development of Hypothermia

Hypothermia is caused by exposure to cool air or water. It is accelerated by wet or damp clothing, wind, exhaustion, or sudden contact with cold water.



A person's normal core (inner body) temperature is 37 degrees C. When the body begins to lose heat, a person will react in two ways to stay warm:

1. He will shiver.

2. He will probably stamp his feet and move about.

Both these actions drain energy and slowly lead to exhaustion.

If this continues, the body's energy reserves will be depleted. The body will lose heat faster than it can produce it and the core temperature will drop. As body temperature decreases, the vital internal organs — brain, liver, heart — lose their ability to function. Cooling of the brain seriously impairs judgment and reduces reasoning power. This is hypothermia.

Hypothermia victims first experience uncontrollable shivering, then confusion, loss of memory and finally unconsciousness and may die.

Detection of Hypothermia

Whenever you are outdoors, think about hypothermia. Watch for symptoms of hypothermia in yourself and others.

The following are symptoms of hypothermia:

1. Uncontrollable spells of shivering

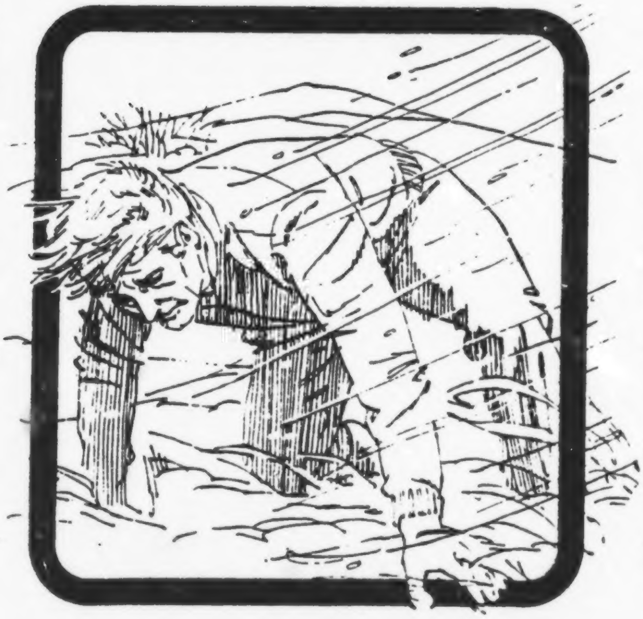
2. Slurred or slow speech, incoherent and vague statements

3. Memory lapses

4. Fumbling hands, frequent stumbling, lurching gait

5. Drowsiness

6. Exhaustion, inability to get up after a rest.

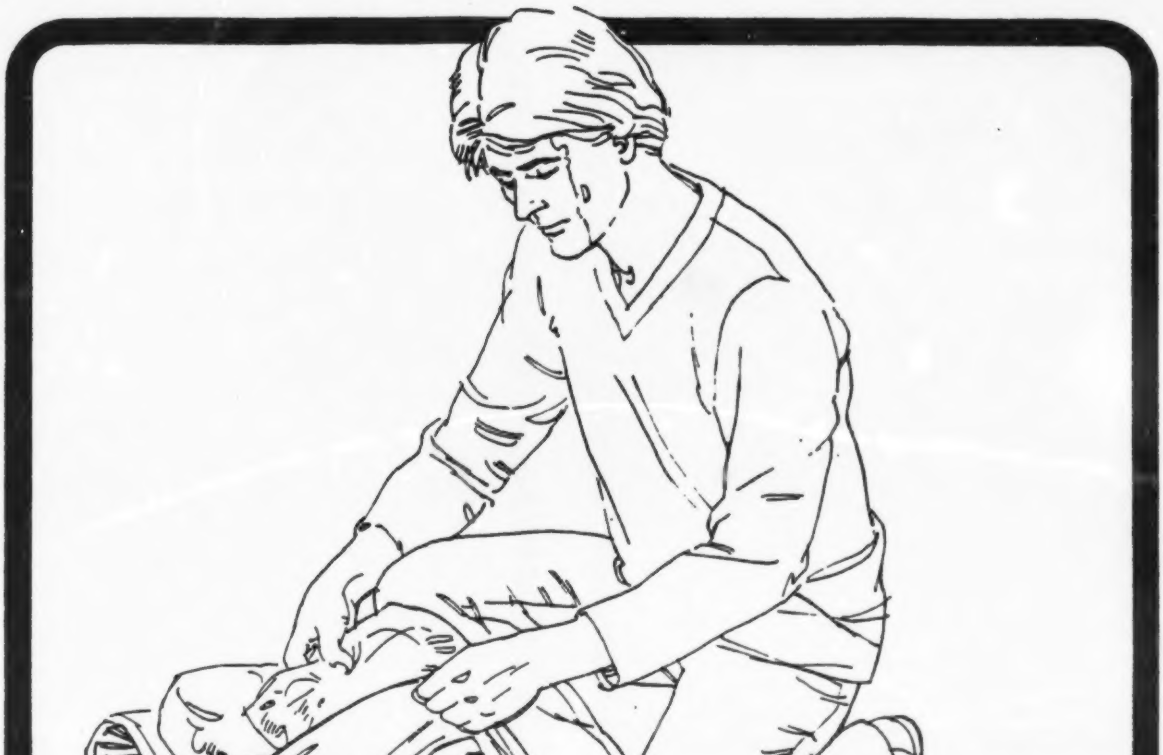


Prevention of Hypothermia

Choose clothing that will keep you dry and warm.

Check weather conditions before you leave.

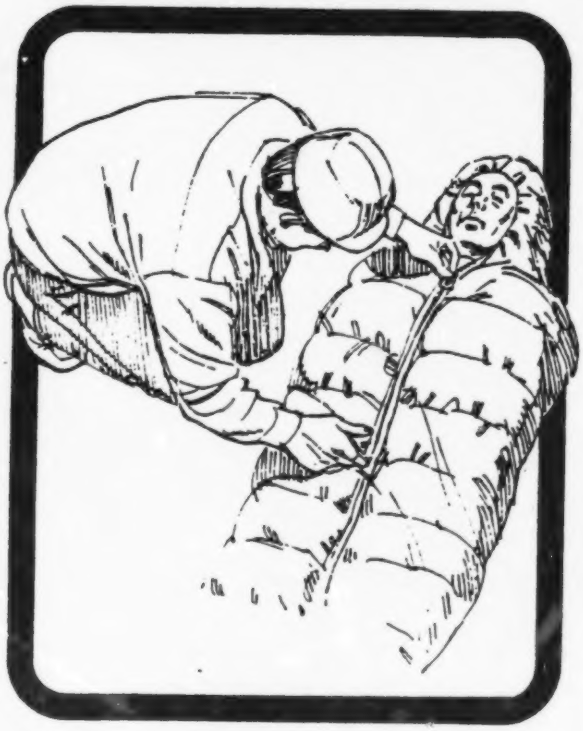
Prepare and pack a survival kit to carry in your jacket pocket.



Treatment of Hypothermia

General Exposure

A victim of hypothermia may deny he is in trouble. If a person shows symptoms of hypothermia, believe what you see, not what he says. Even mild hypothermia requires immediate treatment.



1. Move the victim of hypothermia to shelter and warmth as quickly as possible. If shelter is not readily available, immediately build a fire to warm the patient.
2. Remove the patient's wet clothes.
3. Apply heat to the patient's head, neck, chest and groin.

   a) Use warm, moist towels or other cloth material, hot water bottles or heated blankets to warm the patient. As the heated materials cool, replace them with other warm packs.

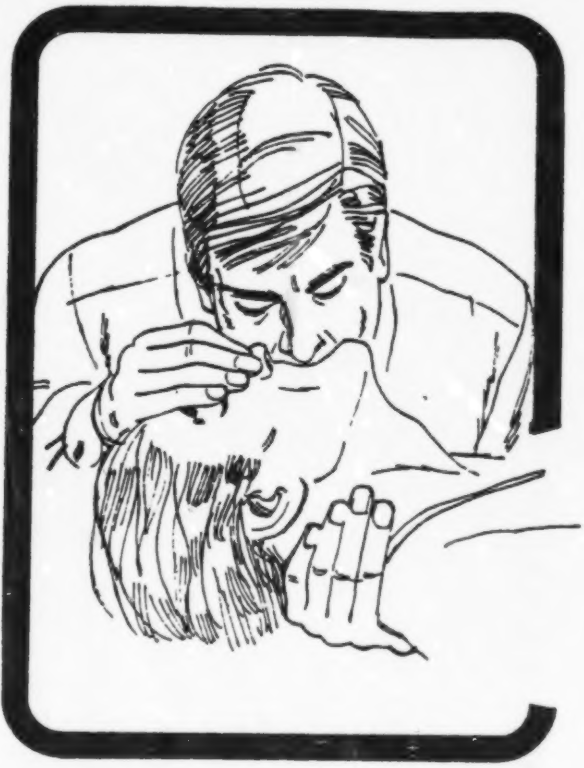
   b) If a sleeping bag or blanket is available, place the naked patient in it. Remove your clothing and lay close to the person, inside the bag, allowing the heat from your body to warm the patient.

   c) As the patient recovers, give him warm drinks. This will help raise the core temperature. Don't give a hypothermia victim alcohol.

Hypothermia and Drowning

If the victim appears dead:

1. Clear the air passage and begin mouth-to-mouth respiration immediately (see First-Aid). Do not worry about getting water out of the patient's lungs.



2. When the patient has begun to breathe on his own, place him in a sleeping bag or blanket to prevent further loss of body heat, but do not attempt to rewarm him. Warming will cause cold blood from the extremities to return to the core of the body. This may further lower core temperature and kill the patient.
3. Get the patient to the nearest medical facility. Do not permit the patient to walk. Transport him gently and keep him lying down, as still as possible.
4. If the patient does not start breathing, continue mouth-to-mouth respiration. Do not give up. Sometimes resuscitation takes a long time before a drowning victim will respond. Drowning victims look dead. Their skin is blue and cold to the touch. There may be no detectable heartbeat, breathing or any other sign of life. If other people are available, respiration can be continued while the patient is being transported to the nearest medical facility.

Field Survival Techniques

Fire Building

Fire is a basic need for survival. With fire, a person can warm himself, dry clothing, signal for assistance, cook a meal and enjoy a safe and comfortable night. Fire provides security, comfort and has a way of putting fear and apprehension out of the mind. Always carry the means to light a fire with you when hunting.

Ignition

Long wooden matches of the "strike-anywhere" variety, are the most practical matches for lighting fires. A waterproof, unbreakable container will help keep your matches dry.

To prevent matches from accidentally catching fire inside the container:

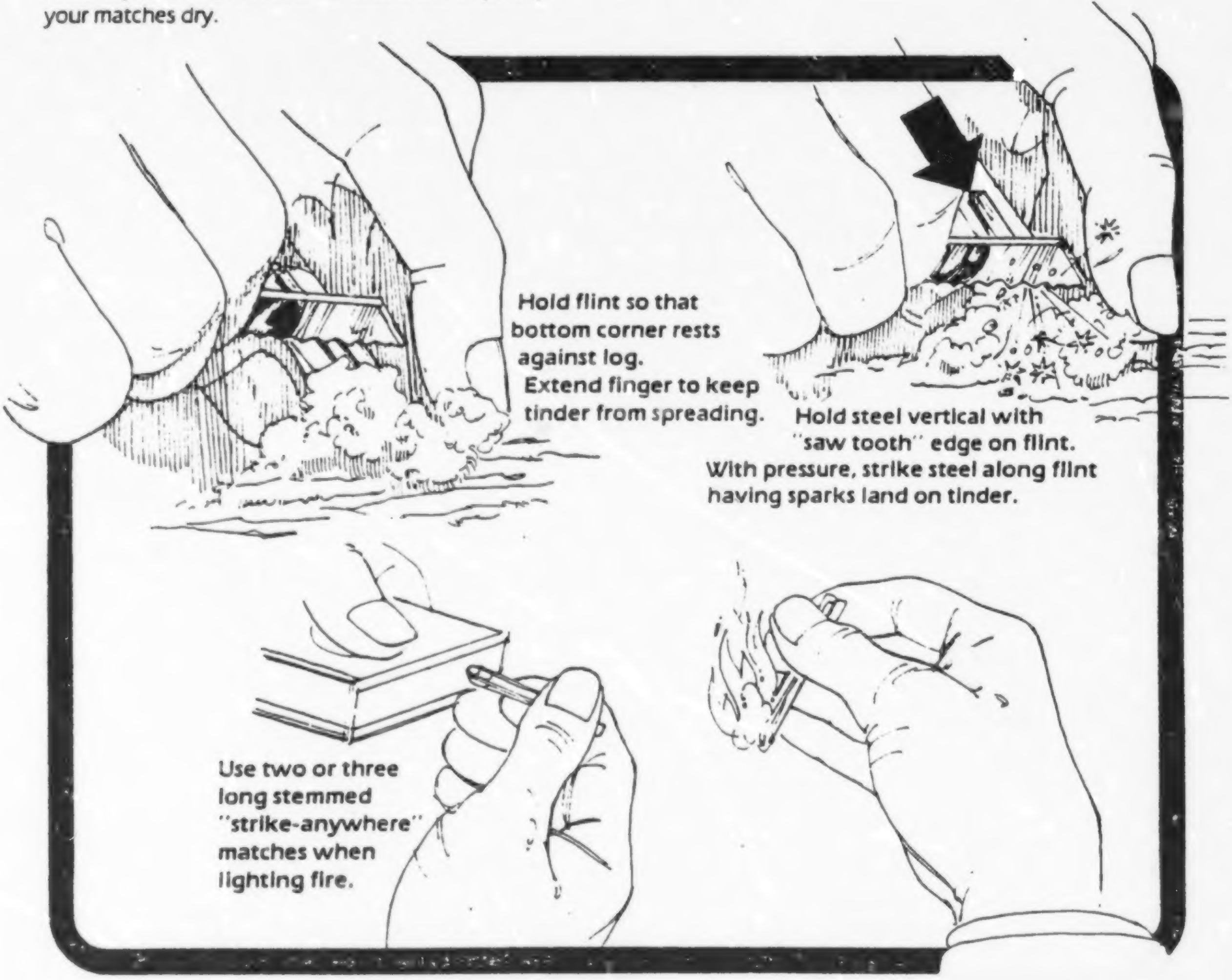
a) place half of the matches upside-down to keep their heads from rubbing together;

b) dip the matches in paraffin wax (this will also waterproof them and make them burn longer;

c) pack cotton batting into the container to keep them from striking against each other (the cotton will also make a good tinder).

A second way to start a fire is with flint and steel. Cold, wet, windy or stormy weather will not affect the use of this fire starter.

Other methods of igniting a fire are far less reliable and are not recommended.



Hold flint so that bottom corner rests against log. Extend finger to keep tinder from spreading.

Hold steel vertical with "saw tooth" edge on flint. With pressure, strike steel along flint having sparks land on tinder.

Use two or three long stemmed "strike-anywhere" matches when lighting fire.

Fuel

Before attempting to light a fire, have two kinds of fuel available — tinder and kindling.

Most fires will not burn without first lighting some easily flammable tinder. In forest areas, you will find tinder readily available. Gather the fine dead twigs from the lower limbs of standing trees or from dry windfalls. They make excellent tinder.

Thin layers of birch bark torn into shreds is also good tinder. Other material such as dry grass, fur balls found in the nests of mice and birds, shavings, dry leaves, hornet nests and even lint scraped off your clothing with a knife or sharp rock make good tinder.

For kindling, gather dry, standing, dead wood. Because of its highly flammable resin, the dry wood of most evergreen trees makes good kindling.

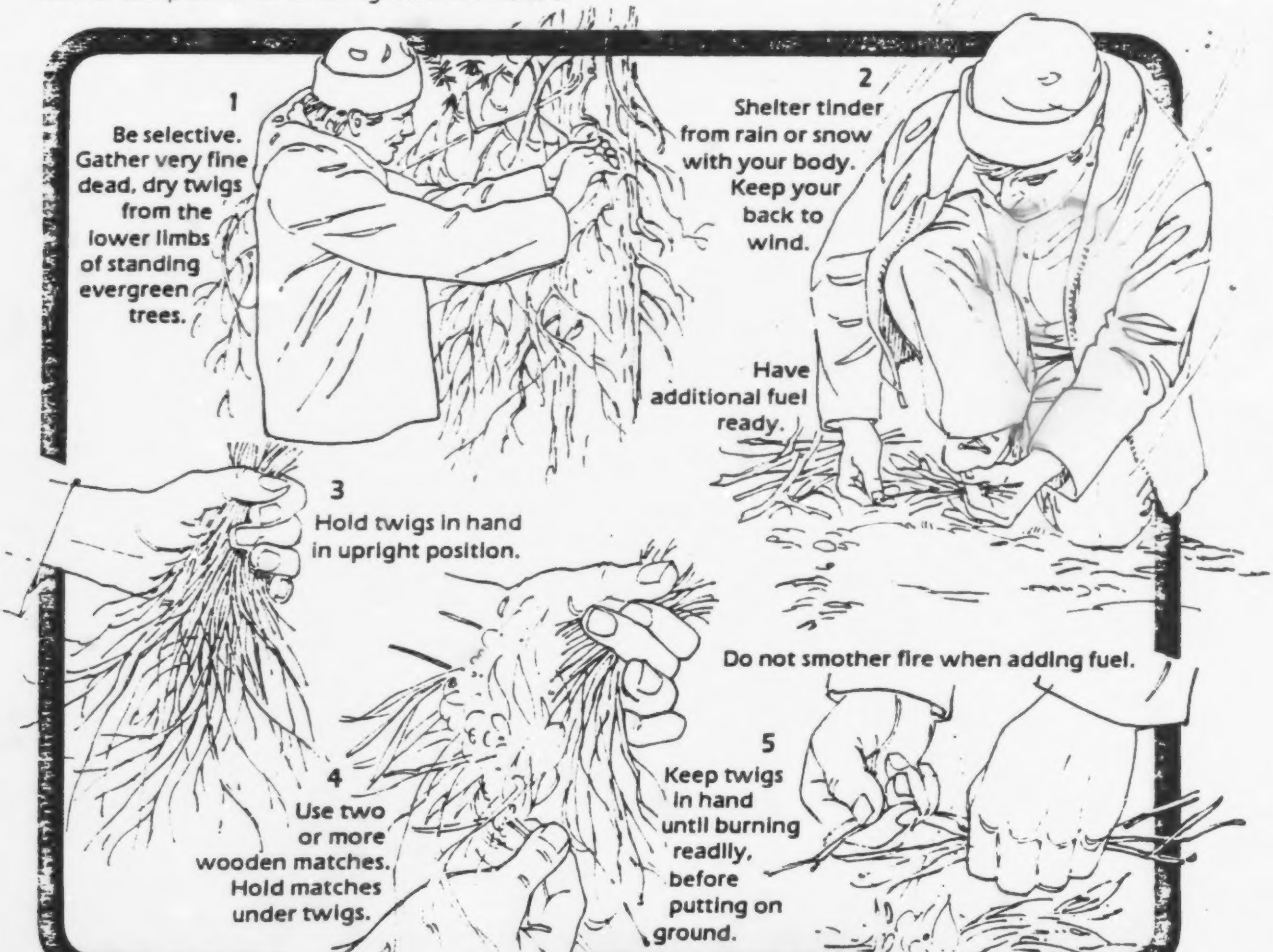
The thicker the logs, the longer they will burn. A large, old tree stump is ideal for an all night fire. The inside of tree trunks and large branches may be dry though the outside bark is wet.

Fire Location

The location of your fire pit should be carefully selected. Do not build a fire under a tree as the tree could catch fire. The heat of a fire should also melt snow on the tree's branches, soaking the fire and putting it out. If you must build a fire on snow, construct a platform on the snow made of green logs or stones. Avoid using wet porous rocks as they may explode when heated.

If the ground is dry, scrape away all grass and debris and build the fire on bare dirt to avoid starting a grass or forest fire.

If possible build the fire against a rock or wall of logs to reflect the heat towards you and your shelter.


1
Be selective. Gather very fine dead, dry twigs from the lower limbs of standing evergreen trees.
2
Shelter tinder from rain or snow with your body. Keep your back to wind.
Have additional fuel ready.
3
Hold twigs in hand in upright position.
4
Use two or more wooden matches. Hold matches under twigs.
Do not smother fire when adding fuel.
5
Keep twigs in hand until burning readily, before putting on ground.

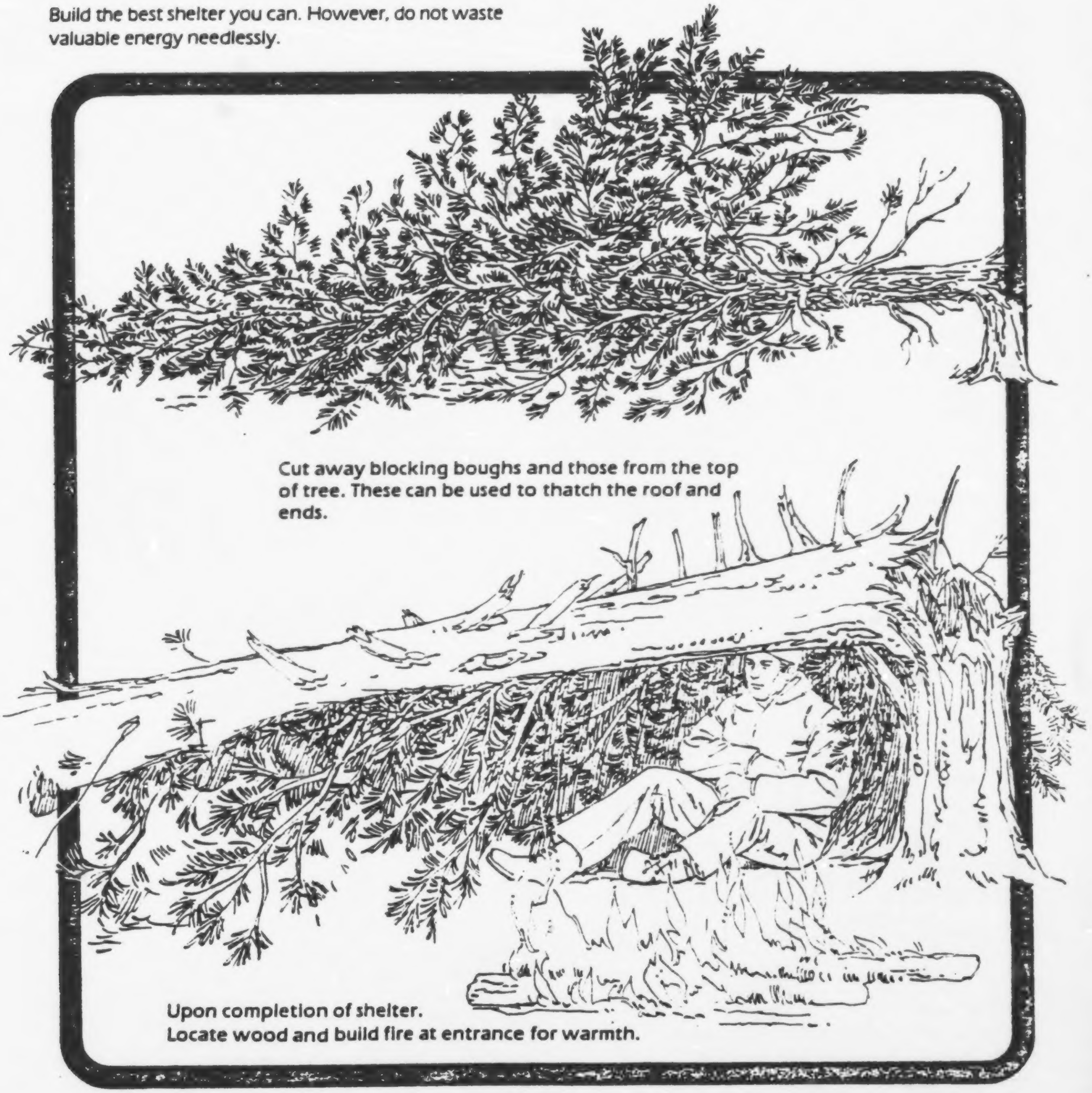
Shelter Building

Choose the most protected spot you can find for your shelter site. A cave, rock outcrop or fallen tree will provide shelter for the night. If it isn't sufficiently sheltered, use whatever is at hand to make it better. It is of vital importance to stay warm when lost or stranded. Your shelter should protect you from the wind and cold and keep you dry to prevent loss of body heat. Choose a shelter site that will allow you to locate a fire in front of it.

Build the best shelter you can. However, do not waste valuable energy needlessly.

Fallen Tree Shelter

If you are among trees, the quickest and easiest form of shelter is one made from a fallen tree that has ample space between the trunk and the ground. Often all that is necessary is to cut away some of the branches and lean them against the trunk to form a crude type of roof. Be careful not to cut off any of the limbs underneath that may be supporting the tree.

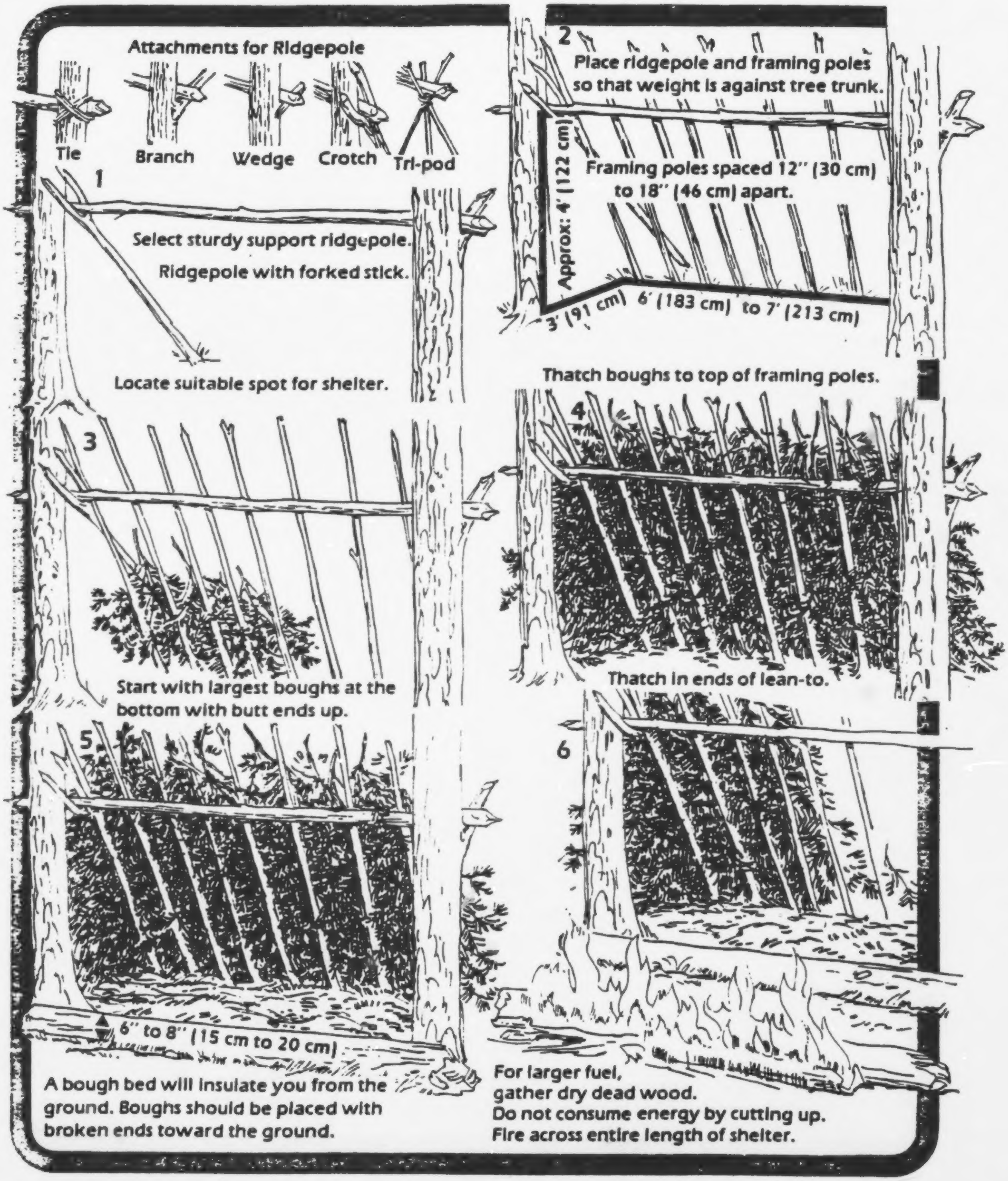


Cut away blocking boughs and those from the top of tree. These can be used to thatch the roof and ends.

**Upon completion of shelter.
Locate wood and build fire at entrance for warmth.**

Lean-To Shelter

One of the easiest shelters to build is a lean-to. A bed made of boughs about eight inches (20 cm) deep, will provide good insulation from the cold ground. Boughs should be placed in rows with the butt ends toward the ground.


Attachments for Ridgepole
Tie
Branch
Wedge
Crotch
Tri-pod
1
2
Approx: 4' (122 cm)
3' (91 cm)
6' (183 cm)
to 7' (213 cm)
3
4
5
6
6" to 8" (15 cm to 20 cm)

Select sturdy support ridgepole.

Ridgepole with forked stick.

Locate suitable spot for shelter.

Place ridgepole and framing poles so that weight is against tree trunk.

Framing poles spaced 12" (30 cm) to 18" (46 cm) apart.

Thatch boughs to top of framing poles.

Start with largest boughs at the bottom with butt ends up.

Thatch in ends of lean-to.

A bough bed will insulate you from the ground. Boughs should be placed with broken ends toward the ground.

For larger fuel,
gather dry dead wood.
Do not consume energy by cutting up.
Fire across entire length of shelter.

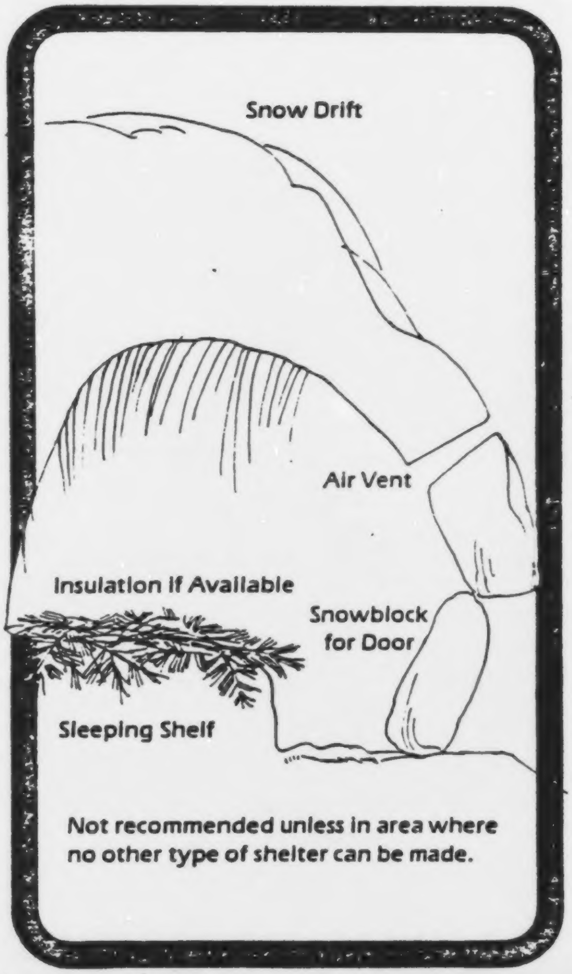
Snow Cave Shelter

Snow caves are difficult to dig without getting wet. For this reason, they are less desirable than other types of shelter. However, snow is a good insulating material that can keep you warm in a survival situation.

A snow cave should be deep enough to sit in. When shaping a snow cave, arch the roof inside so moisture from melting snow will run down the sides of the cave and not drip on you. Do not make the cave's roof exceptionally thick. The cave should be shallow enough and the roof thin enough so you can break through the snow and stand up if a cave-in should occur.

Punch a ventilation hole in the roof. Keep it open by ramming a stick through it occasionally. It is very important to clear drifting or blowing snow from the vent so fresh air keeps circulating within the cave.

Chop a roomy bench or sleeping shelf at least one foot (30 cm) above the cave entrance and cover it with tree branches.


Snow Drift
Air Vent
Insulation If Available
Snowblock for Door
Sleeping Shelf

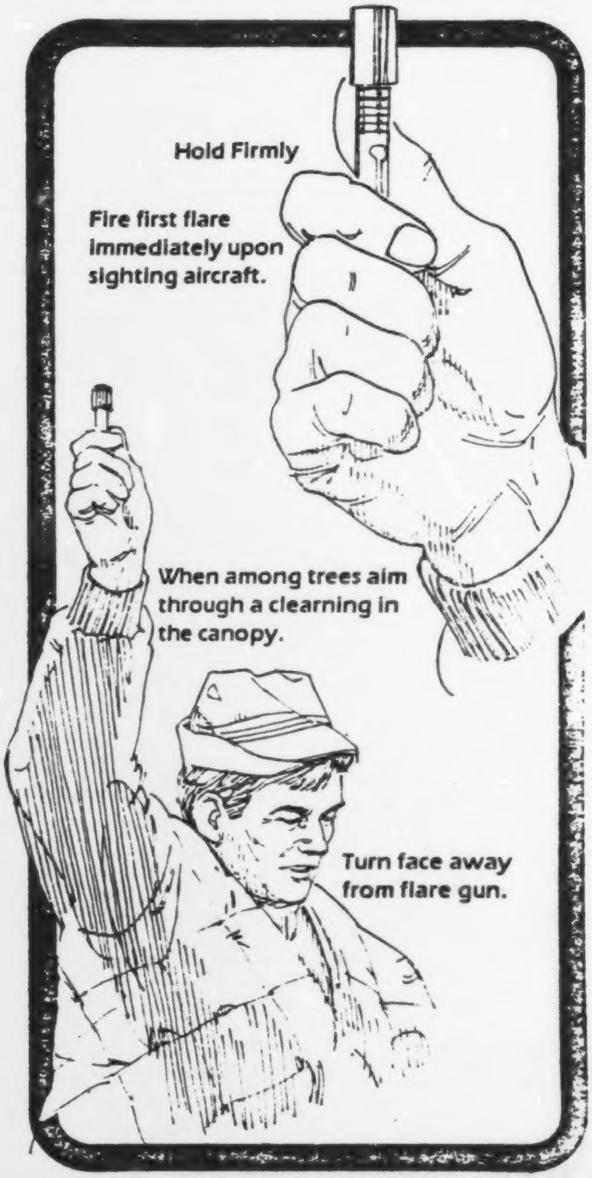
Not recommended unless in area where no other type of shelter can be made.

Rescue Signals

Once your needs for first-aid, fire and shelter have been dealt with, consider how to attract other people's attention to your location. Various types of signals can be used. Although the International Emergency Distress Signal is three signals of any kind (i.e. three shots, three whistle blasts, three fires in a triangle), a single signal is better than none at all.

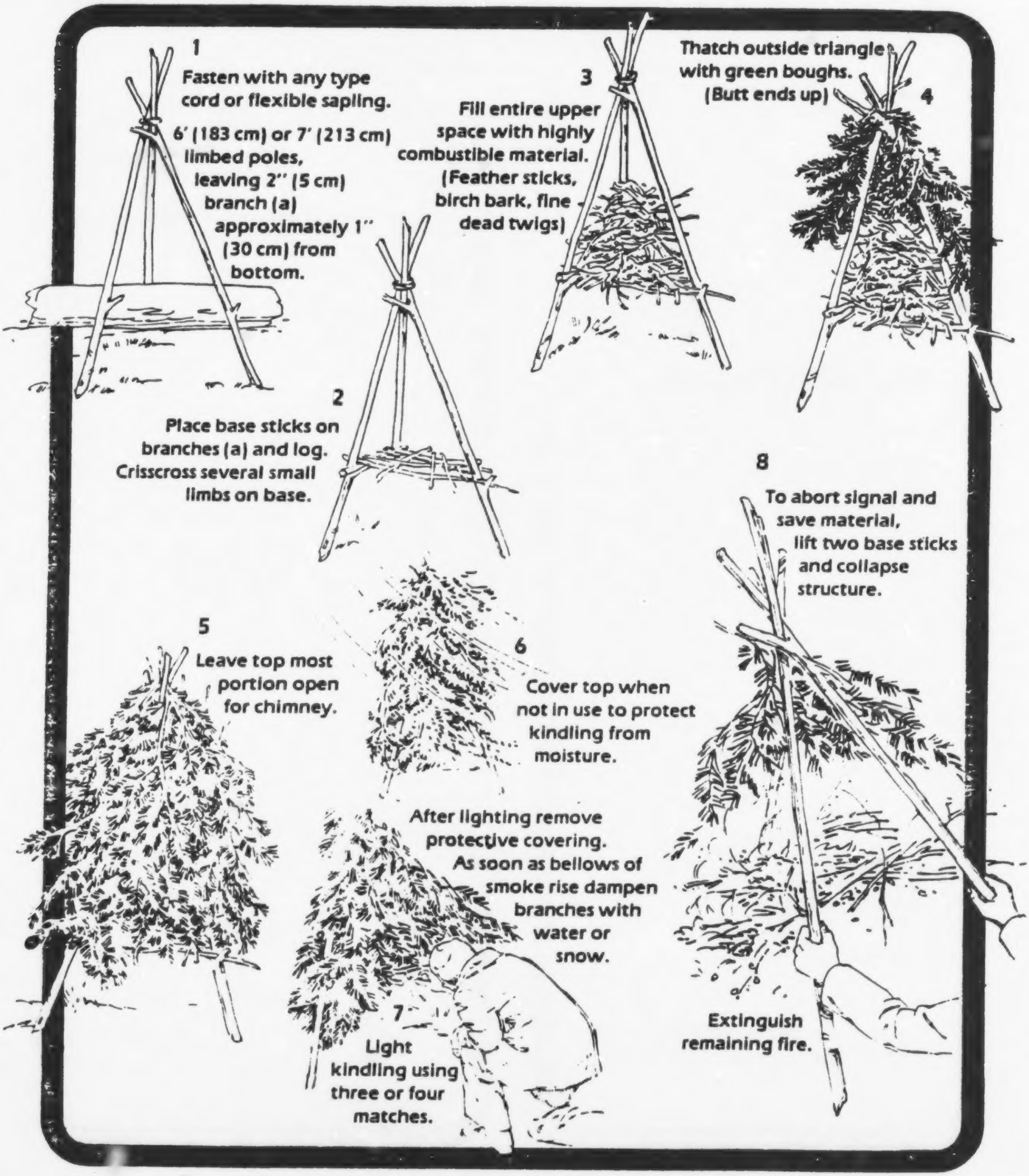
Flare Signals

To attract searching aircraft, flare signals are best. Flare cartridges are available which can be fired from a rifle or shotgun. Also, small, flare signalling devices may be purchased and included in your survival kit.


Hold Firmly
Fire first flare immediately upon sighting aircraft.
When among trees aim through a clearning in the canopy.
Turn face away from flare gun.

Fire Signals

The best signals are fires. A large bright fire at night or a smoky one by day can be easily seen. Throughout the spring, summer and fall, Alberta forests are patrolled regularly to detect fire locations and such a signal should bring help to you. Be careful to keep your fire under control because an uncontrolled fire could destroy your camp and threaten your life.



1 Fasten with any type cord or flexible sapling.

6' (183 cm) or 7' (213 cm) limbed poles, leaving 2" (5 cm) branch (a) approximately 1" (30 cm) from bottom.

2 Place base sticks on branches (a) and log. Crisscross several small limbs on base.

3 Fill entire upper space with highly combustible material. (Feather sticks, birch bark, fine dead twigs)

4 Thatch outside triangle with green boughs. (Butt ends up)

5 Leave top most portion open for chimney.

6 Cover top when not in use to protect kindling from moisture.

7 Light kindling using three or four matches.

After lighting remove protective covering. As soon as bellows of smoke rise dampen branches with water or snow.

8 To abort signal and save material, lift two base sticks and collapse structure.

Extinguish remaining fire.

Mirror Signals

The signal mirror is an excellent device for attracting attention. On a clear day, mirror signals may be seen for up to ten miles (16 km) at ground level and at much greater distances from an aircraft.

Sound Signals

Carry a shrill whistle like that used by police forces and mountain rescue teams. It has a loud, distinctive noise. If you do not have such a whistle, improvise one by blowing across the mouth of an empty cartridge case.

Carefully consider using your firearm to attract attention. Resist the urge to fire more than one or two shots on the first day you're lost because others will likely think you're shooting at game and ignore your signal shots. However, if you're seriously injured and bleeding heavily, fire your ammunition off in groups of three shots at a time with 10 seconds between each shot. Wait 10-15 minutes for an answering signal shot. If nothing is heard, fire a second group of three shots. Repeat this procedure as long as your ammunition supply will allow.

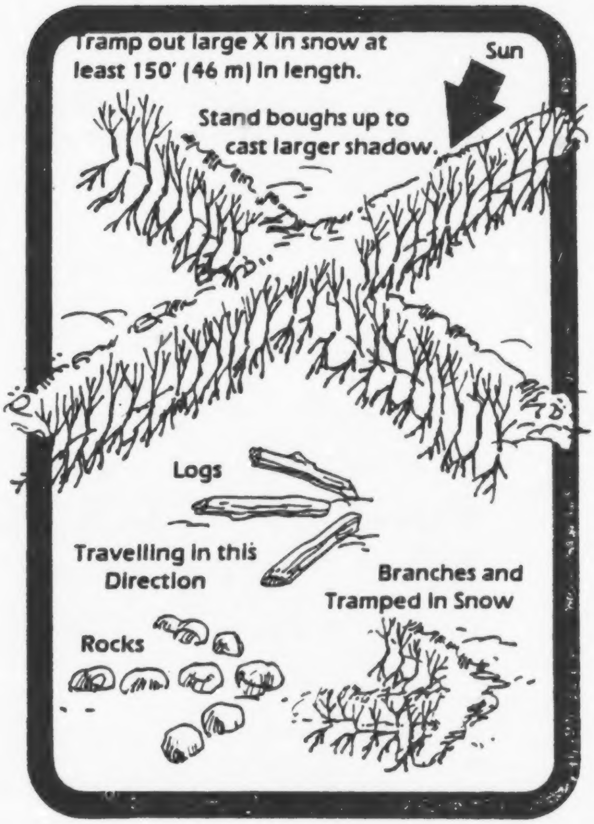
If you're not seriously injured, limit your signal shots to the late evening or night of the first day you're in trouble. Fire single shots spaced an hour or more apart through the night. Conserve enough ammunition to shoot game for food in case you must survive for a week or more (five or more cartridges).

Sound carries best during the evening quiet, just before dark. This is the best time to use a sound signal.

Information Signals

If you decide to leave your place of shelter, be sure to leave a message indicating the direction you're going. Make a large arrow on the ground from any available material — stones, tree branches, brush, trampled down grass or snow, or earth — so that search aircraft passing overhead will know which direction to look. Ground searchers will also be guided by such signals. If possible, leave a note explaining where you are headed and what time you left camp.

As previously indicated, your best chance of survival is by staying put at one location. To signal your location to airborne searchers, besides using a fire, you should mark a large "X" in a clearing near your survival camp. Use heaps of stones or earth, piles of brush, tree branches or trampled down grass or snow. Lay branches beside the lines of the X to create shadows and make your signal more visible from the air. Such signals can even be seen in the moonlight from aircraft.


Tramp out large X in snow at least 150' (46 m) in length.
Sun
Stand boughs up to cast larger shadow.
Logs
Travelling in this Direction
Branches and Tramped in Snow
Rocks

Water

A person can survive for several days without water. Locating water is generally not a problem in Alberta. It is readily available from rivers, streams, lakes, sloughs, small pools of rainwater or snow.

If possible, water should be purified before drinking. Boiling is the safest way to purify it. Dirty water should be filtered through several layers of cloth or allowed to settle beforehand. The taste can be improved by shaking it vigorously to aerate it.

Don't melt snow or ice in your mouth to quench your thirst as this will cause dehydration and loss of body heat. Melt the snow or ice over a fire first to obtain water. Conserve energy by drinking hot liquids instead of cold whenever possible.

Remember that the body requires two or three quarts (2.27 litres or 3.41 litres) of water a day, even in cold weather. Drink even though you may not feel thirsty. Do not ration water by sipping. It will do more good to drink as much as possible when it is readily available. If your water supply is limited, restrict your activity and movement, particularly during the heat of the day.

What is First-Aid?

First aid is the immediate assistance given to someone who is hurt or suddenly becomes ill. It is intended to help the person only until medical aid can be provided.

First aid does not take the place of a doctor's treatment but it can help save lives and prevent further injury.

The basic objectives of first aid are:
1.) to preserve life
2.) to minimize the effects of injury
3.) to relieve pain and suffering

Examine the Victim Quickly Using the Following Step by Step Procedure:

1. Check to make sure the victim is breathing.
2. Locate all wounds and stop all bleeding.
3. Check for lumps on the head.
4. If the victim is conscious, ask him where it hurts and what happened.
5. See if he can raise his head and move his neck — if not, do not move him.
6. If his head, neck and spine are okay, check his arms and legs.
7. If conscious, have the victim take a deep breath and cough to determine whether he has chest injuries.
8. Check for internal injuries by asking him to pull in his stomach and let it out again.
9. Check for spinal injuries by running your hand firmly down his back to detect tenderness or pain.

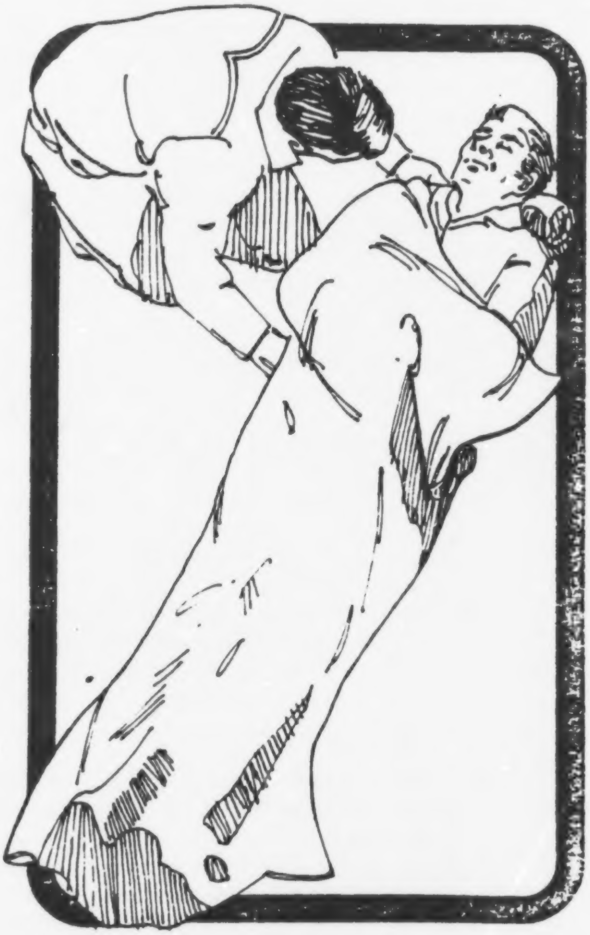
General Procedures

If a person appears seriously injured, don't try to move him. If you don't know exactly what the injury is, keep the victim lying down with his head level. Don't allow him to move around.

Fear, anxiety and sometimes panic, are often the reactions of those involved in emergencies. If you act frightened or upset, you will make the victim even more excited and afraid.

Be calm. When examining and treating an injured or ill person, do what needs to be done carefully, efficiently and quickly. Be as soothing and cheerful as you can. This attitude will calm the person who is hurt or sick and make him feel he is being well taken care of until the doctor comes.

If an accident occurs where there is danger of further harm coming to the injured person from exposure to severe weather, falling rocks or trees, fire or other dangerous conditions, then the patient must be moved to a safe place. Be careful not to put yourself in danger while trying to help.



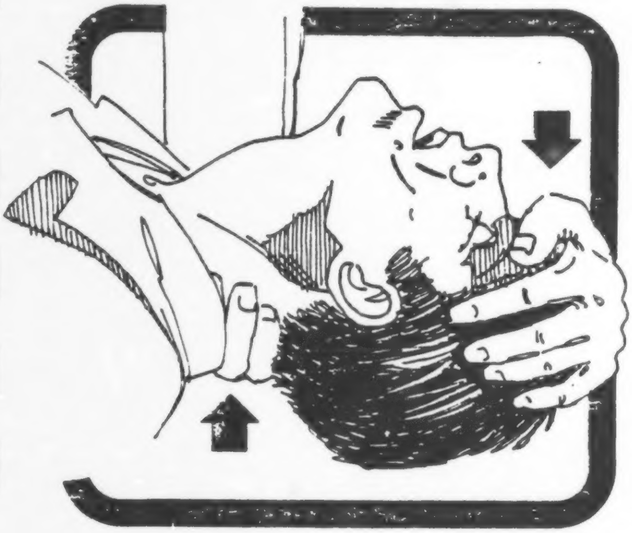
Artificial Respiration

Clear the Air Passage

If the air passage to the lungs is blocked, two things could happen. The victim may become unconscious and he may stop breathing.

Blood, vomit or saliva in the mouth may block the back of the throat and prevent air from passing to the lungs. Sometimes an unconscious person's tongue will partially block off and limit the amount of air which can reach his lungs.

It is vital to get air moving in and out of the lungs at once. Tilt the victim's head back as far as possible. Pull his jaw upward and forward into a jutting-out position. If you can see anything in the victim's mouth that may obstruct the air passage, clear it out with your fingers.

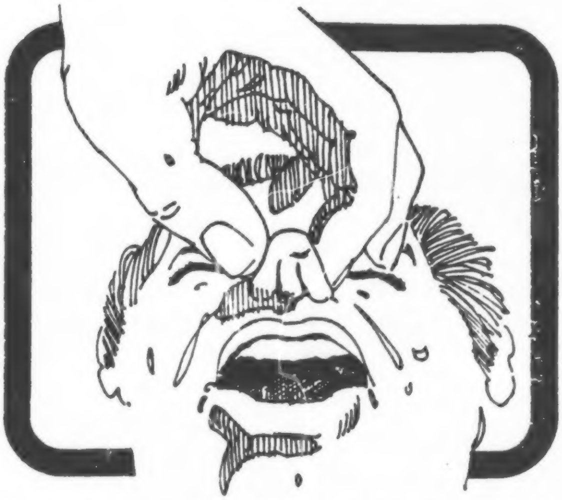


If a fractured neck is suspected, do not force the person's head back. Instead, hook your thumb over his lower teeth and grasp his chin with the fingers of the same hand. Lift the chin upward, open his mouth and remove any visible obstruction.

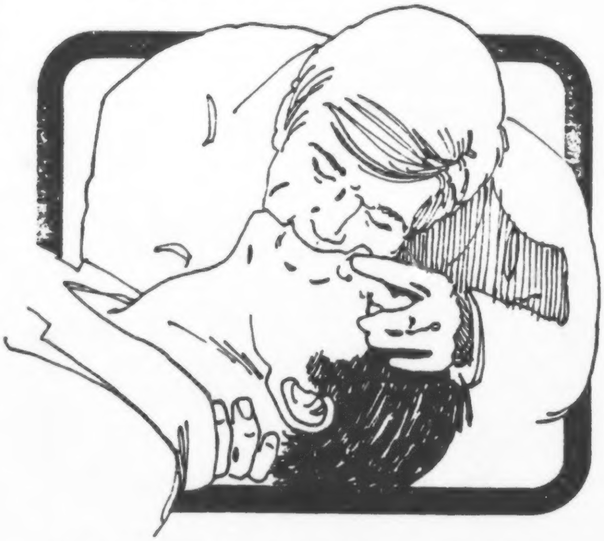
If he does not start to breathe immediately, apply artificial respiration, using one of the following methods:

Mouth-to-Mouth Method

1. Clear the air passage.
2. Open your mouth wide and take a deep breath.
3. Place your mouth over the victim's mouth forming a tight seal. Pinch his nostrils closed with your fingers and blow into his mouth vigorously.



4. Take your mouth away, turn your head to the side and take another deep breath and repeat the blowing in procedure.
5. Don't stop until he starts breathing by himself, or the doctor arrives.



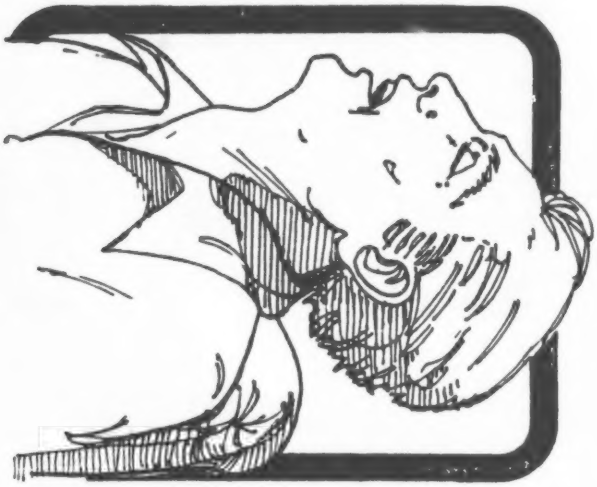
If the victim is an adult, blow 12 breaths a minute; if a child, blow about 20 shallow breaths a minute. When giving mouth-to-mouth respiration to a small child, place your mouth over both his nose and mouth while blowing.

Chest Pressure — Arm Lift Method

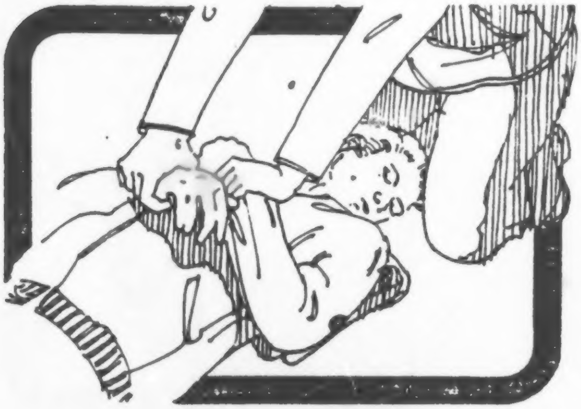
If the victim has mouth or facial injuries, the mouth-to-mouth method may not be possible. In this case, the chest pressure - arm lift method of artificial respiration is more practical.

Clear the air passage.

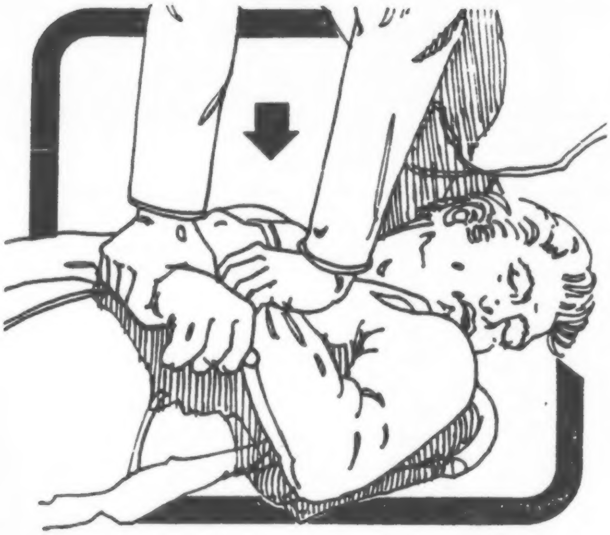
With the victim lying face-up on his back, place a pillow, rolled blanket or whatever is immediately available under his shoulders. This will raise the shoulders and chest several inches and the head will drop backward. Turn the head to one side.



Kneel at the top of the victim's head facing his feet. Grasp his wrists and cross them over the lower part of his chest.



Still holding his wrists, lean forward until your arms are approximately at right angles to his chest. Allow the weight of your upper body to exert steady, even pressure downward. This will cause air to flow out of the person's chest.

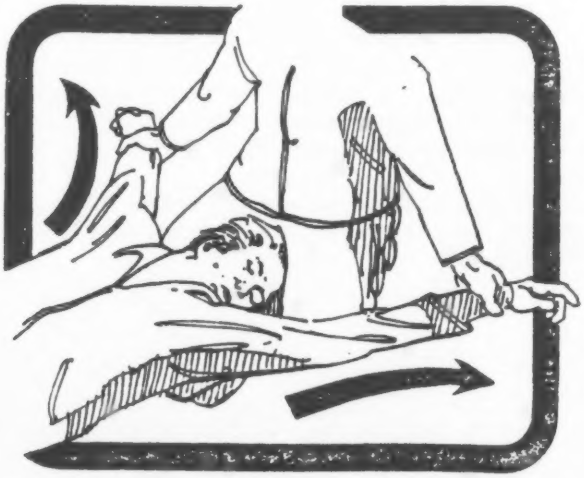


Release pressure by rocking back on your heels, pulling the victim's arms outward and upward as far above his head as possible. This action will cause air to flow in to the victim's lungs. Each complete cycle should take five seconds.

Repeat these movements without stopping, keeping a steady even rhythm of 12 cycles per minute.

Check inside the victim's mouth often to see if any obstructions have appeared. Remove any obstructions to the air passage.

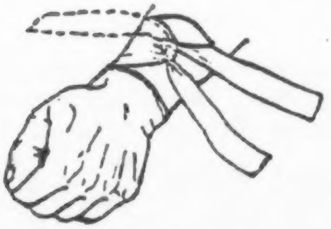
Don't give up. It sometimes takes hours of continuous effort before the victim will begin to breathe by himself.



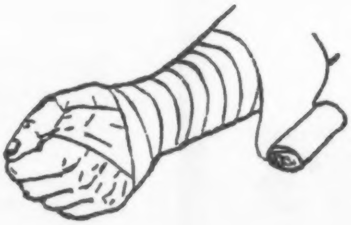
Cuts

Cuts are probably the most common injuries that occur to trappers. For minor cuts to fingers and arms, small adhesive bandages can be used. If the cut is deep and would ordinarily require stitches, a butterfly bandage should be applied. These bandages can be purchased at a drugstore and, when applied to the cut, will hold the tissue together almost as tightly as stitches. These butterfly bandages should be applied over a suitable dressing such as a telfa pad (a non-sticking gauze) which is then covered with a piece of gauze over which are applied the butterfly bandages. If the cut is very deep in a place subject to a lot of movement, then you should consider having it stitched.

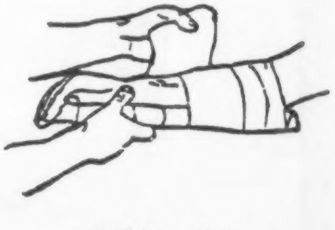
One of the most potentially hazardous situations is to cut your leg with an axe. If the cut is through the boot, do not remove it, because you will be unable to get the boot back on. It is almost impossible to travel very far in the bush without boots on both feet, especially during cold weather. Push an absorbent dressing through the cut in the boot, then tie something around your boot, so pressure is applied to the wound in order to stop the bleeding. If you sever an artery, you need to stop the bleeding immediately. When an artery is severed, blood comes out in spurts whereas, if a vein is cut, the blood will ooze out. Even if the artery is very small, the individual can only survive for a few minutes, if the bleeding is not stopped. By pressing a clean and preferably sterile dressing over the wound, and applying sufficient pressure, the bleeding will usually stop. Pressure can be applied with an elastic bandage. In some cases, the artery may be too large and under too much pressure for the blood flow to be stopped by pressure on top of the wound. In this case, pressure will need to be applied to one of the pressure points on the body. Consult a first-aid book to find where these pressure points are located. If bleeding still continues, a tourniquet should be used. Some people have suggested that a tourniquet should never be used. However, it should be used as a last resort. The tourniquet is applied close to the wound, but between the heart and wound, and then tightened. After allowing sufficient time for the blood to clot in the pressure bandage, loosen the tourniquet slowly, until assured the bleeding is stopped. During all this time, the limb should be elevated. When the limb is elevated, the blood has to be pumped up-hill and thus, the pressure at the wound will be less. The danger of using a tourniquet is that it stops the blood supply to all parts of the limb beyond the tourniquet. When the blood supply is stopped to any part of the body for a long period of time, the tissues will die and even over a short period of time an individual may become unconscious. For this reason, it is extremely important that a tourniquet be loosened enough to let the blood flow into the limb every 8 to 10 minutes.



Fastening the Roller or Spiral Bandage
(Tear the end into two tails, tie a knot, carry one tail in the opposite direction, and tie.)



Simple Spiral Bandage
(Used in bandaging cylindrical parts; overlap each turn one third.)

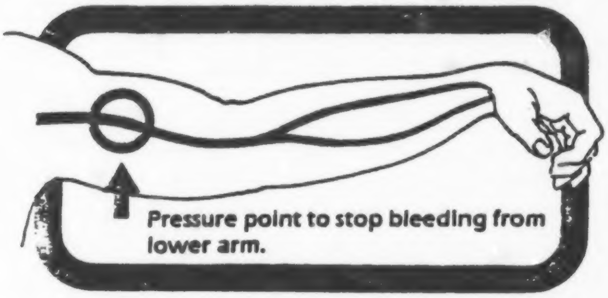


Applying a Splint

Bleeding From Cuts

Cuts are the outdoorsman's most common injury. They are usually the result of accidents with tools such as axes, hatchets and knives.

Bleeding from most cuts can be stopped by pressing firmly on the cut with a thick cloth pad.

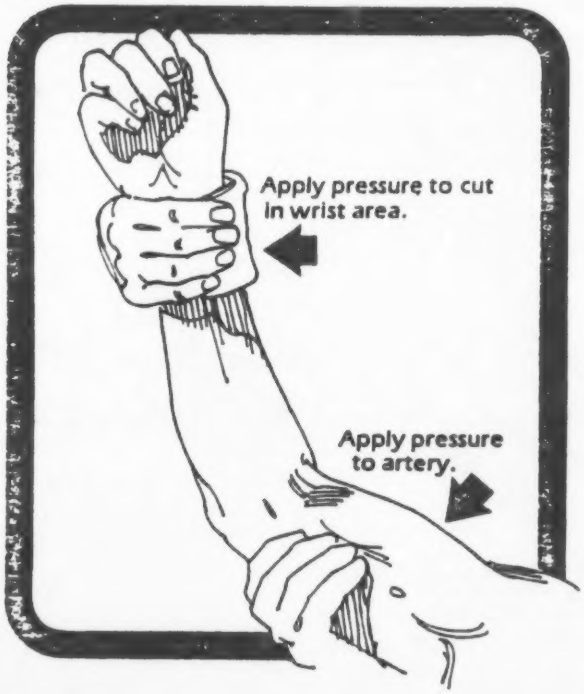


Pressure point to stop bleeding from lower arm.

It is vital to stop all bleeding as quickly as possible. Use whatever cloth is handiest — a handkerchief, even a piece of clothing such as an undershirt — if a sterile compress isn't readily available.

Press the pad firmly, directly over the wound and hold it there until the bleeding stops. Keep pressing for at least five minutes. Do not dab at the cut and do not keep looking to see if the bleeding has stopped. If you release the pressure too soon the bleeding will start again.

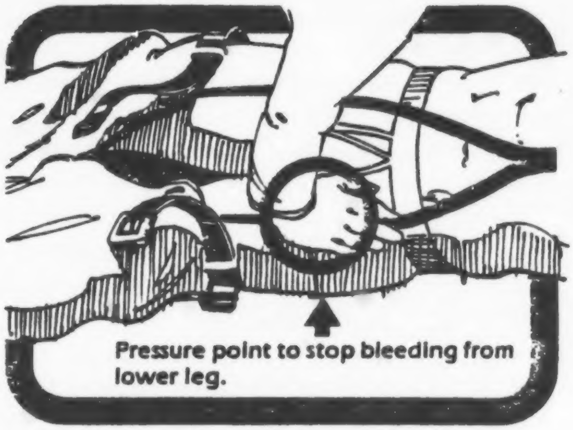
If the cut is on an arm or leg, keep it elevated to help stop the bleeding.



Apply pressure to cut in wrist area.

Apply pressure to artery.

If blood is coming in spurts, it means an artery has been cut. Bleeding from an artery can cause death in just a few minutes if it is not stopped quickly. To stop bleeding from a severed artery, keep pressure directly over the wound AND apply additional pressure at pressure points. If the cut is in the lower arm, blood flow can be controlled by applying strong pressure on the inside of the arm, halfway between the elbow and shoulder. If the cut is in the leg, blood flow can be controlled by applying strong pressure in the groin area.



Pressure point to stop bleeding from lower leg.

A TOURNIQUET SHOULD BE USED ONLY WHEN BLEEDING IS SO SEVERE THAT THE VICTIM'S LIFE IS ENDANGERED, because the tourniquet could result in the loss of a limb. Never use wire or string to make a tourniquet, use a belt, strips of cloth or a rolled handkerchief. The tourniquet should be tied loosely, as close to the wound as possible and between the wound and the heart.

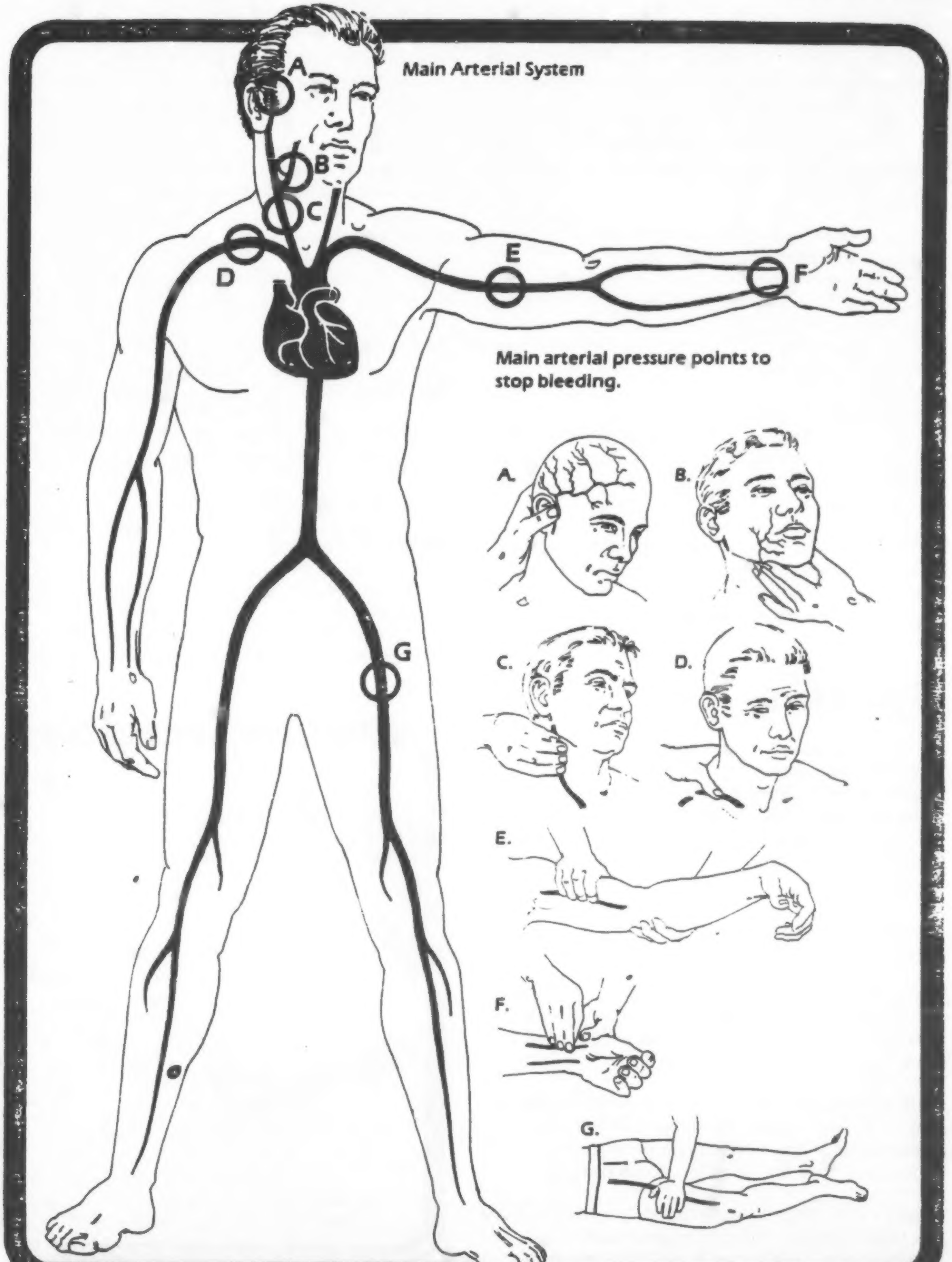
Insert a stick in the knot of the cloth or belt and twist to tighten the tourniquet. It should be tight enough to stop the bleeding but not so tight that it cuts off blood circulation.

Once the bleeding has stopped, the wound should be cleaned. Wash the wound with clean water and soap. Be very gentle or the bleeding may start again.

Antiseptics and alcohol should not be used to clean wounds. Although these products do kill germs, they can also destroy tissue which could delay healing.

After the wound has been carefully cleaned, apply a sterile bandage or gauze compress and hold it firmly in place with adhesive tape.

As a precaution against serious infection, anyone planning a hunting or camping trip should receive an anti-tetanus toxin injection before starting out.



A
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Main Arterial System

Main arterial pressure points to stop bleeding.

Shock

The victim of any kind of accident or medical emergency will often suffer shock in addition to his injuries. Shock may occur immediately, or it may happen several hours after an accident.

A person in shock is pale, perspiring and feels faint. His pulse will be rapid and weak and his skin will feel cold and damp.

Even when an injury is not extensive, shock can be very serious. No matter what the accident, after immediate first-aid treatment has been given, keep the victim lying down even if he doesn't want to. His head should be lower than his body, unless he has a head or chest injury. Raise the person's head slightly if there has been an injury in these areas.

Keep the person warm, but not hot. A person in shock loses body heat rapidly, which makes the shock more severe. Cover him with a blanket or coat. If he is on the ground and his injuries permit movement, put a blanket underneath him.

If he is conscious, he may be given small amounts of liquid. If the wound is in the stomach or lower chest, or if the victim will obviously require surgery, do not give him anything to drink, even though he may be very thirsty.

Sprains

Next to cuts, sprains are the most common injury suffered by outdoorsmen. Sprains are injuries to ligaments and muscles and the blood vessels around a joint. They almost always occur as a result of excess pull or strain on the supporting ligaments of a joint. If the stress is extreme, ligaments may be torn away from the joint.

Sprains cause swelling, tenderness, and pain if the injured part is moved.

Rest the injured part on a pillow or blanket roll. If the ligaments have been pulled or torn, rest will permit them to strengthen themselves. Keeping the injured limb raised will help to reduce swelling.

A severely sprained wrist or ankle should be treated as if it is fractured — splint the injured part and keep it elevated for 24 hours. Newspapers or magazines rolled tightly will make firm splints for immobilizing a limb.

Apply a cold compress to the sprain. This will reduce the swelling. Continue treating the sprain with cold compresses for several days if necessary until there is no swelling.

Fractures and Dislocations

A fracture is a broken bone. A dislocation is the displacement of the end of a bone from its joint. Dislocations often have the same symptoms as fractures and should be treated as if they were broken bones.

Only a doctor or qualified medical practitioner should 'set' a broken bone. If someone has fractured or dislocated a bone, immobilize the injured area, and guard against further injury while getting him to a hospital or doctor.

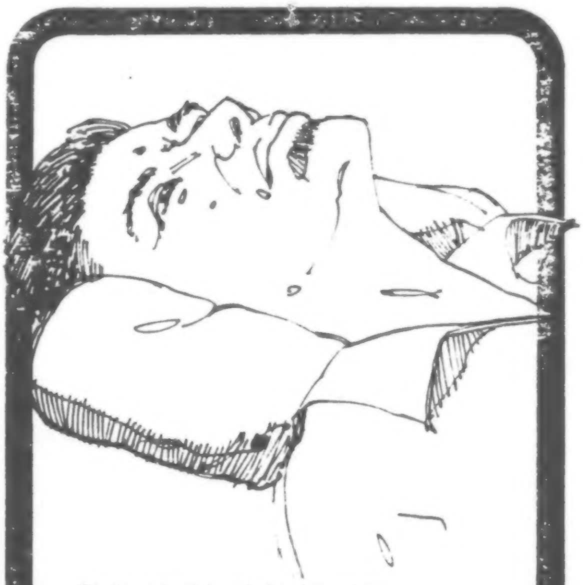
There are two kinds of fractures — simple and compound. A simple fracture is also called a closed fracture because the broken bone is under the surface of the skin. Dislocations are treated like closed fractures. A compound, or open fracture, is when the broken bone cuts through the skin and makes an open wound.

In treating an open fracture, do not push the bone back inside. First, control bleeding by direct pressure.

Give first-aid for shock.

Back Injuries

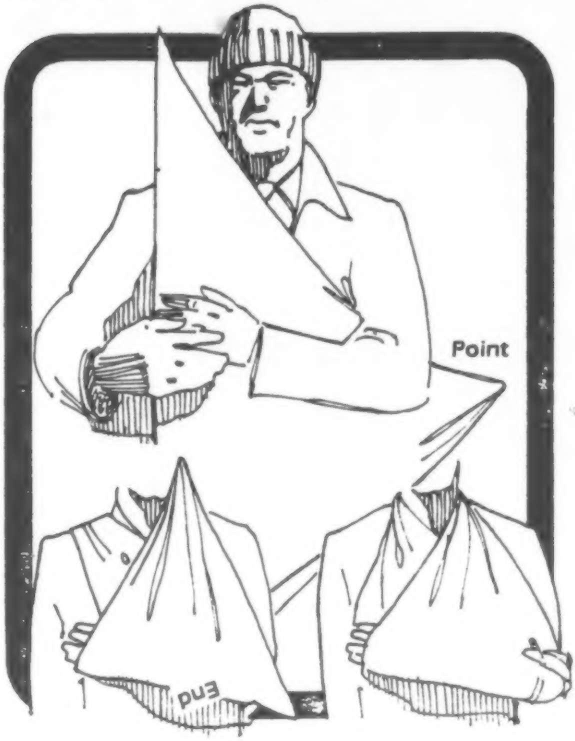
Great care must be taken when moving a person with a suspected back fracture. Use a board as a stretcher. Do not twist or bend the injured person's neck or back, and keep him lying very still while taking him quickly to a hospital.



Pad each side of the head to prevent excessive movement.

Upper Arm Fracture

When there is a fracture of the upper arm, tie splints securely, one on each side of the break. Put padding in the injured person's armpit to make a cushion and prevent chafing. Support the arm with a sling. Then bind the arm to the chest to keep it still.



Elbow Fracture

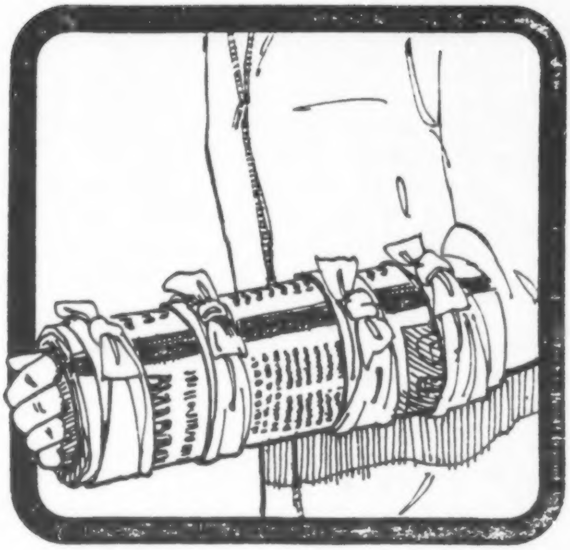
When an elbow is fractured, do not move the joint to a different position. Splint the elbow in the same position it is in after the break. The victim should be treated by a doctor as quickly as possible to prevent damage to the hand and other complications.

Forearm Fracture

There are two bones in the forearm. Very often, both bones will be broken in an accident. Splint the entire forearm to immobilize the arm.

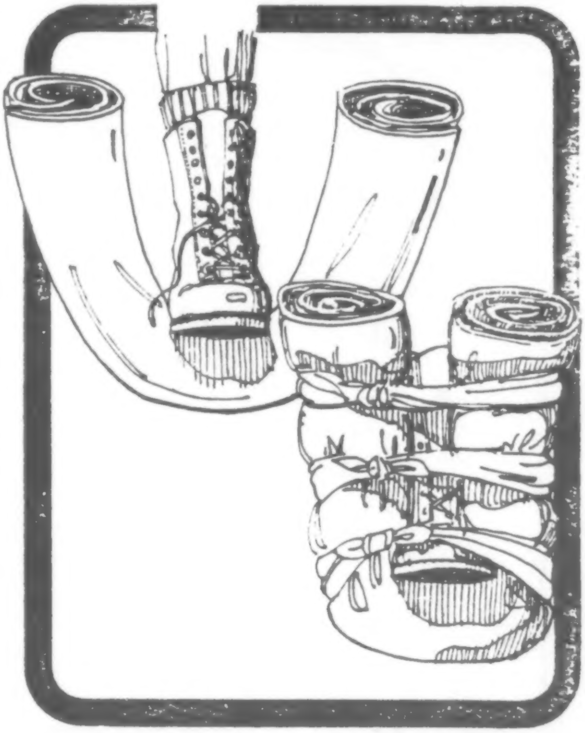
Wrist Fracture

A broken wrist is often the result of falling on an outstretched hand. Until the wrist can be properly set, it should be immobilized with splints and kept in an elevated position.



Ankle Fracture

Splint the ankle without attempting to change the position of the broken bone. A tightly rolled blanket or pillow can be used to splint a broken ankle. With the injured foot placed on the centre of the blanket roll or pillow, bring the roll up each side of the ankle and strap or tie securely.

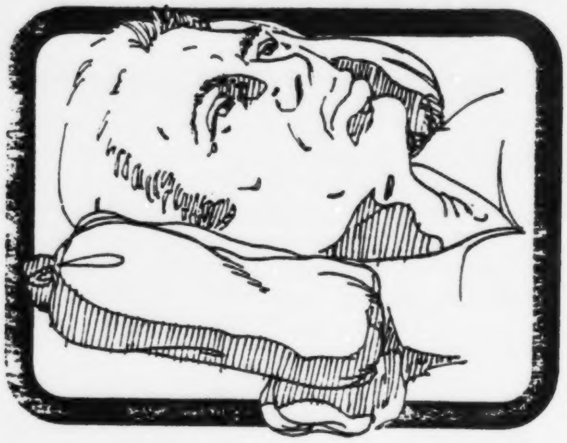


Hip, Pelvis, Thigh and Lower Leg Fractures

Fractures of these bones can be serious and medical attention should be obtained as quickly as possible. Keep the broken ends and the joints around them still and in the position in which they are broken. The victim must be kept still and quiet with the broken bone completely immobile during the trip to the hospital.

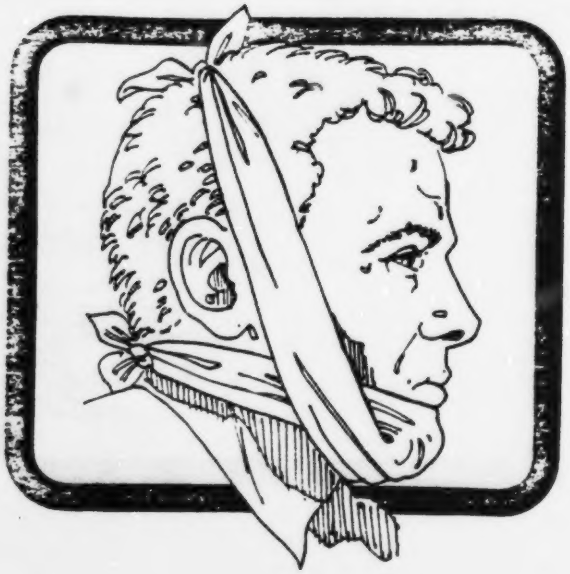
Neck Fracture

The victim must be moved very carefully. Move the head and the body at the same time as one unit. Carry the victim on a firm stretcher, lying on his back with his face up. Place a small support under the neck and padding around the head and neck to prevent motion.



Jaw Fracture

Loosely wrap a bandage under the chin and over the top of the head. This will keep the lower jaw from dropping. Do not tie the bandage in such a way that the injured person is unable to open his mouth.



Fractured Ribs

A fractured rib can be dangerous because the broken bone could puncture the lung or some other internal organ.

If a fractured rib has broken through the skin, cover the open wound with a thick sterile compress so that air cannot enter the chest cavity. The victim should be moved, lying on his back with his head and chest slightly raised.

Fractured ribs which have not caused damage to internal organs may mend and heal themselves. Fractured ribs should be taped to reduce pain, but must not be taped so tightly that expansion of the lungs is restricted.

Concussion

Concussion is the swelling of brain tissue following a severe blow to the head. A person with a head injury should be kept still and encouraged to rest quietly. He may have a headache and stiff neck accompanied by vomiting and he may not be able to think clearly. The pupils of the eyes may be different in size.

Immediate medical attention is essential if the victim is bleeding from the ears or mouth or if there is a clear, watery fluid coming from the nose or ears. Keep the injured person at rest with his head slightly raised. Give first-aid for shock.

Burns

Do not ignore a burn, even if it is minor. If left untreated, a burn could become infected.

If someone is badly burned you must relieve the pain, prevent infection and treat for shock until you are able to get the victim to a hospital. Shock is the greatest danger after a severe burn.

The severely burned person may be given small sips of a weak solution of salt water or small sips of a mixture made of 1 teaspoon of salt and 1/2 teaspoon of baking soda added to 1 quart (1.13 litres) of water.

Do not try to clean a burn or strip away any clothing that is sticking to the burn. Immerse the burned area in cold water. This will relieve pain. If a blister forms, do not break the blister.

Cover the burn with a clean dressing. This will relieve the pain by keeping the air away from the burn. It also reduces the chance of infection. If a very clean dressing is not available, leave the burn uncovered.

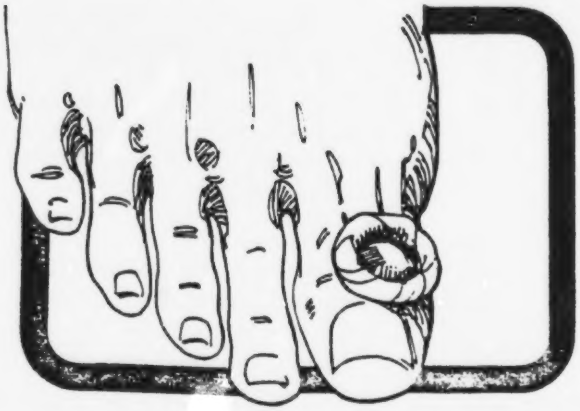
Do not use antiseptic or iodine on a burn and never apply grease or butter. If the burn is very minor, burn ointment or Vaseline may be used to relieve the pain on the first day.

A person exposed to a flash or forest fire may suffer damage to the lungs from breathing in smoke and heat. He should be taken to the hospital as quickly as possible.

Blisters

Inspect your feet frequently for tender red patches which are the beginnings of blisters. Cover these areas with adhesive tape to protect the skin from being rubbed by your shoe and forming a blister.

Once a blister has formed, make a donut bandage — which is a round pad with the centre cut out — to protect the blister.



Do not break blisters. This increases the chance of infection and makes them more painful. Instead, cleanse the area around the edge of the blister and, with a sterilized needle, prick a tiny hole in the side of the swelling. Very gently ease the fluid out through the pinprick. When the blister is empty, cover the area with a sterile dressing or adhesive tape. If tape is applied over the blister, it should remain in place until a new layer of skin has formed.

To relieve pain and inflammation, soak the blistered area in hot water for 20 to 30 minutes, three or four times daily. After each soaking cover the tender area with a sterile dressing.

The ragged dead skin of a broken blister should be trimmed carefully to prevent damaging new tissue, but should not be completely removed until the new skin has formed and toughened.

Frostbite

Frostbite is the freezing of a part of the body; most often the nose, ears, cheeks, fingers, or toes.

When frostbite occurs, the skin is first flushed, then changes to a shiny white or grayish-yellow. Occasionally there is pain with frostbite, but usually the affected areas are numb.

If you suffer frostbite, do not rub the frozen part. Warm frostbitten skin by putting the affected area against a warm part of your body — cup your hand over a frostbitten ear, warm frostbitten fingers under your armpit.

As soon as you are indoors, immerse the frozen part in lukewarm, body-temperature water. Do not use hot water.

After thawing, cover the affected part with some warm material. Drink hot nourishing liquids such as soup and hot chocolate.

After the skin thaws, do not allow it to become frostbitten again soon afterward. Refreezing will kill skin tissue.

A hunter whose feet are frozen would be better to walk for help on frozen feet than to thaw his feet and proceed later, taking a chance on having his feet freeze a second time.

Deep Freezing

Deep freezing is extremely dangerous because gangrene may set in, resulting in the loss of skin or toes and fingers.

Freezing can be prevented by avoiding excess fatigue, alcohol, by eating hot meals, and wearing proper clothing.

Where the skin is deep frozen, it is yellow-white, painless and hard. Indoors, droplets of water, condense or sweat on it, as on a glass of ice water in the summer.

Take warm (non-alcoholic) drinks to raise the output of body heat. Rewarm rapidly, never slowly. Never rub with snow.

It is best to thaw out when you get back to camp. If you thaw the affected area while on the trapline, it may become refrozen while you are returning to your cabin causing gangrene to set in.

The thawed area can easily be infected, so it is extremely important to keep everything in contact with the area as clean as possible. All bandages or clothing over the area should be loose, **not snug**, to allow for good air circulation.

Bites

Animal Bites

If you are bitten by an animal, wash the wound with soap and water. Cleanse thoroughly to prevent infection. Use firm pressure with a clean cloth to stop bleeding. Have a doctor examine the wound as soon as possible.
Wild animals can carry rabies which can be fatal to humans unless treatment is started as soon as possible.

Animal bites may also cause tetanus in a person who has not been immunized against this infectious, sometimes fatal disease. To guard against tetanus, an anti-tetanus inoculation is recommended before taking an extended hunting trip into remote country.

Insect Bites

Ticks burrow into the skin. Pulling them off often leaves their heads beneath the skin, later causing infection. Dabbing ticks with Vaseline, kerosene or gasoline, or bringing the tip of a hot stick near the insects, will make them let go.

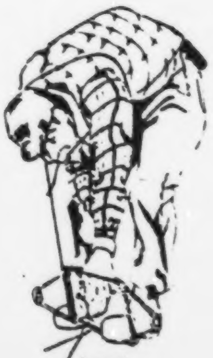
Spider bites can cause swelling and redness. Cold compresses applied to the bite will reduce swelling.

Bee and wasp stings can be very serious. If a person is stung by many bees or wasps, he may become quite ill. Some people are allergic to bee or wasp venom and will have severe reactions if stung.

Multiple stings or allergies may cause a person to have difficulty breathing, go into shock and unconsciousness. Cold compresses will reduce swelling and a paste made of starch or calamine lotion will lessen the itching.

Trapper Caught in Conibear Trap

A potential hazard for a trapper is being caught in a Conibear trap. Use the rope as illustrated to free yourself Practice this release method before needed and, when using No. 220 and No. 330 Conibear traps, always have a length of rope with a loop close at hand. Use of the rope method is a good habit to cultivate when setting and removing animals from Conibears.

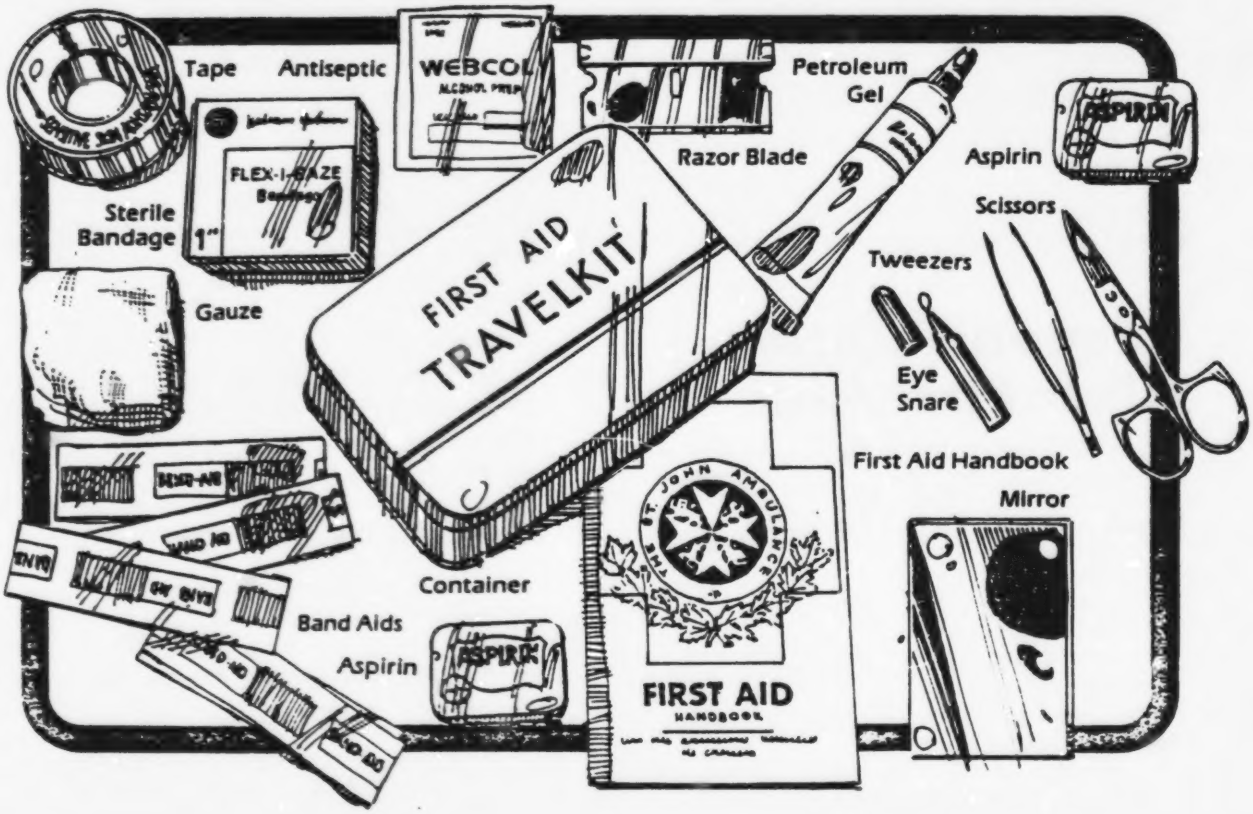


First Aid Kit

With the knowledge of first aid, you will know what to do in emergencies. If someone is injured, you can provide aid until a doctor arrives — prevent injuries from becoming more serious — perhaps save a life. A trappers gear should include a first aid kit. First aid kits may be purchased in a variety of sizes. However, you may want to build one yourself. Know what is in your first aid kit and how to use it.

First Aid Kit Components

First aid handbook
Bandaids — approximately 6-12
4 x 4 inch (10 cm x 10 cm) sterile bandage
Roll of gauze bandage — 1 inch (2.5 cm)
Adhesive tape — ½ inch x 5 yards (1 cm x 1.5 m)
Petroleum gel
Antiseptic
Razor blade
Small scissors
Tweezers
Eye snare
Small mirror


Tape
Antiseptic
WEBCOL
FLEX-I-GAZE
Sterile Bandage
1"
Petroleum Gel
Razor Blade
Aspirin
ASPIRIN
Scissors
Tweezers
Gauze
FIRST AID TRAVELKIT
Eye Snare
First Aid Handbook
Mirror
Container
Band Aids
Aspirin
ASPIRIN
THE ST. JOHN AMBULANCE
FIRST AID
HANDBOOK

To be properly prepared for emergencies, trappers should take a first-aid course and know the proper procedure of first-aid. Most first-aid books do not provide all the information needed by a trapper travelling alone in the bush. For this reason trappers should read some good books dealing specifically with wilderness first-aid and survival. The following are two such books:

"How to Stay Alive in the Woods" by Bradford Angier. Published by Collier-MacMillan, Toronto, Ontario

"Being Your Own Wilderness Doctor" by Dr. E. Russel Kodet and Bradford Angier. Published by Paper Jack Ltd., Markham, Ontario

Trappers should plan to have two types of first-aid kits. The first type should be kept in the cabin and would include not only those items needed for emergency use, but items one would normally have on hand at home to treat common ailments, along with any medication your doctor has prescribed for treating ailments you have at the present time. It should also contain a first-aid book. This first aid kit would be more approximately termed as a medicine chest.

The second type of first aid kit would be carried by the trapper at all times in a coat pocket or in a back pack, and would include items needed for emergency situations.

Your family doctor may suggest that some special drugs be included in your first aid kit.

Tape around the rim of the first-aid kit's container. This will keep the kit water-tight and, although the tape is not sterile, it may be useful if extra tape is needed for any purpose.

Your first aid kit, like your survival kit, should be completely familiar to you. Know what it contains and how to use each item properly.

Learn enough basic first aid so that you can help yourself and your companions should an emergency occur.

Responsibilities After First Aid

After first aid treatment has been given, other actions may need to be considered.

Moving the Injured Person

Give careful thought to:

1. Nature of injury
2. Distance from help
3. Discomfort and complications associated with the injury.
4. Type of terrain
5. Weather conditions
6. Time of day
7. Is medical help available at destination.

Leaving Victims To Go For Help

Consider the following:

1. State of mind (is victim capable of staying alone?)
2. Is casualty out of shock?
3. Weather conditions (Will the injured person be comfortable while you are away? Is he sheltered from sudden storms?)

Areas of Concern For Yourself:

1. Do you know your destination and route thoroughly?
2. Are you mentally and physically capable of arriving at destination in the time you plan?
3. Should the weather change for the worse, will you still be able to reach help?
4. Be certain you can direct help to the exact location of injured person.

Consider these points carefully before you take action and always keep in mind that it is your responsibility to try and save a life without endangering yourself or others.

A Person's Legal Responsibility in Rendering First Aid is Outlined in Alberta Legislation as Follows:

Protection From Action

Where, in respect of a person who is ill, injured or unconscious as the result of an accident or other emergency,

1. a physician or registered nurse voluntarily and without expectation of compensation or reward renders emergency medical services or first aid assistance and the services or assistance are not rendered at a hospital or other place having adequate medical facilities and equipment, or
2. a person other than a person mentioned in clause 1. voluntarily renders emergency first aid assistance and that assistance is rendered at the immediate scene of the accident or emergency,

the physician, registered nurse or other person is not liable of damages for injuries to or the death of that person alleged to have been caused by an act or omission on his part in rendering the medical services or first aid assistance, unless it is established that the injuries or death were caused by gross negligence on his part.

— excerpt from The Alberta
Emergency Medical Aid Act

NOTES

ENERGY AND NATURAL RESOURCES

Fish and Wildlife Division

Alberta Trapper Compensation Program

May, 1985

The Trapper Compensation Program has been established to help trappers and other resource users pursue their activities on the same land base with as little conflict as possible. Should conflict occur the program is designed to assist the trapper in obtaining compensation for losses.

The Department of Energy and Natural Resources Act authorizes the Minister to establish a board when he considers it necessary to act in an advisory capacity. A board has been appointed to advise the Associate Minister on matters concerning compensation to trappers for damages and losses suffered by them as a result of industrial activity in Alberta.

This brochure is intended as a source of information to trappers and other resource users and stresses the need to co-operate so that both can respect one another's rights.

Due to cultural or language differences government personnel involved in responding to claims by native trappers should seek assistance of council or band members and, when necessary, seek interpretive services so that the intent of the provisions are applied equally to all trappers.

TRAPPING CERTIFICATES, LICENCES

Wildlife in Alberta is the property of the crown. The right to take and sell fur from fur-bearing animals is given to registered trappers by a Trapping Area Certificate. This entitles the certificate holder to hunt and trap fur-bearing animals on crown land described on the certificate.

Residents of Alberta may also hunt, trap and sell furs from fur-bearing animals under the authority of a Resident Trappers Licence. This licence entitles the holder to hunt and trap fur-bearing animals on private land, occupied crown land or unoccupied crown land that does not lie within a registered trapping area.

Crown land within Alberta is managed on a integrated-land-use basis. The right to use land or its resources is authorized by various government departments and divisions within departments. Trapping, lumbering, mining, or exploration activities can therefore occur simultaneously on the same lands. Since some of these uses can and often do conflict with trapping, controls and protective measures are necessary.

Traditionally, registered trappers have improved their areas by developing trails, cabins and bridges so that their returns could increase. In addition, managing an area properly assured trappers their rights for a long tenure. Monetary and time investment to improve a trapping area can be considerable.

The issue of compensation was voiced by trappers at Public Land Use hearings held in Alberta during 1978 and 1979. As a result, the Associate Minister of Public Lands and Wildlife announced the Trapper Compensation Program effective August 19, 1980. This program provides compensation for losses of trapping income and damages which stem from activities of the conventional oil and gas industry, as well as for theft or damages to equipment and fur caused by unknown parties.

The seismic activity of the oil and gas industry often operates through contractors and moves frequently and quickly through many trapping areas, so that opportunities for direct settlement for damages are limited. In contrast, the timber and oil sands industries operate for long periods in a given area, and hence allow ample opportunities for resolving differences directly.

Two main aspects of the program included the appointment of a board and the establishment of a fund to which the conventional oil and gas industry contribute.

Trapper Compensation Review Board

The Trapper Compensation Review Board comprises six members appointed annually under Ministerial order. Members include two from industry, representing the Canadian Petroleum Association and the Independent Petroleum Association of Canada, three members representing Indian trappers, Metis trappers and the Alberta Trappers Association and the fourth member, an impartial chairman chosen from the public. The board is directly responsible to the Associate Minister and has three main functions:

1. Advise Government on trapper problems from all kinds of disturbing activities on Crown land;

2. Act as informal mediator of disputes on damage claims between trappers and any agency or industry impacting the fur resource;

3. Recommend appropriate levels of payment from the Fund where it applies.

The Board therefore meets periodically to evaluate the claims according to approved policy guidelines. Recommendations for claim settlement are made to the Associate Minister who has the final decision. Although the final decision will normally be accepted, dissatisfied claimants may appeal in writing to the Minister.

Trapper Compensation Fund

The Trapper Compensation Fund is maintained by assessing the conventional oil and gas industry $1.24 per hectare (50 cents per acre) for seismic activity and $2.48 per hectare ($1 per acre) for other influences (well sites, pipelines, battery sits and roads) when this activity occurs in the Green Area of Alberta these being basically the forested areas of the province. Although funding stems from assessments in the Green Area, payments from the fund may be awarded to registered trappers throughout Alberta. Claims by junior registrants (partners, helpers) will be considered provided the claim is acknowledged in writing by the senior registrant or trapping area holder. Compensation for theft and vandalism may also be awarded to resident trappers on unoccupied Crown land.

The Fish and Wildlife Division administers the program and provides a secretary-manager position to the board, while fish and wildlife officers and trapline resource officers investigate claims and prepare the reports. On occasion, forest officers may also be contacted for information and assistance to trappers in making claims.

TYPES OF CLAIMS

Acceptable claims and reporting procedures for trappers are:

Vandalism, Theft and Arson (Furs, Equipment, Buildings)

These activities are criminal and must be reported as soon as possible to the Royal Canadian Mounted Police or Fish and Wildlife. Early reporting provides an opportunity for investigation. In areas where these agencies are not available, the Alberta Trapper's Association may assist in reporting such losses on the trapper's behalf.

Procedure:

1. The trapper must report such matters as soon as possible with as much detail as possible to the RCMP or Fish and Wildlife. If witnesses to the damage or loss are available, their supporting testimony is very important. Photographs are also useful.

2. The trapper makes a claim for loss at the nearest Fish and Wildlife office.

Once the claim has been thoroughly investigated and the suspects are still unknown or can't be found, it will go to the board for evaluation and conclusion. Compensation for payment will come from the fund.

Damage to Equipment and Assets

This type of claim occurs when trappers are not adequately notified of pending activity, and damages to traps, snares, cubbies, or even fur in traps results. (See notification requirement on page __ of brochure).

Procedure:

1. The trapper must contact the Company responsible, indicate the damage and attempt to settle the matter directly. Trappers should contact any representative of the company while the activities are occurring on the trapping area. (To request settlement for such damages long after a company leaves the trapping area results in unnecessary delay and decreases the opportunity for the company to verify the loss.)

2. If negotiation between the trapper and company does not result in a settlement, the trapper should make a claim at the nearest Fish and Wildlife office.

On receipt of the claim, the trapline resource officer will investigate, assist in reaching a settlement or report the conflict to the board which will evaluate the claim and recommend a settlement to the Associate Minister. In such cases, companies will be advised as to the fair and just settlement and should honor the decision. When damage occurs and the company responsible cannot be located, then the fund may compensate the trapper.

Inconvenience

This type of claim results when industrial activity causes a trapper extra work to properly carry out his trapping operation. Examples of inconvenience are re-setting and moving of traps, re-building cubbies, clearing blocked trapping trails, and building new trails to other areas.

Procedure:

The same procedure as for damage to equipment.

Short-term Loss of Revenue Due to Interference and Disturbance

This type of loss may occur on a trapping area when very intense industrial activity occurs throughout the trapping season, and interferes with the trapper's operations or disturbs the normal movement of fur-bearing animals. The trapper must continue to work as hard as he has in past seasons. If he is unable to harvest his normal number of fur-bearing animals, he may be eligible for compensation.

Procedure:

1. The trapper may contact the company or companies responsible and attempt to negotiate a settlement. This is not a requirement, however, as most of the payments would be made from the fund.
2. The trapper should contact the trapline resource officer or apply for compensation at a Fish and Wildlife office.
3. The trapline resource officer will investigate and document the claim and report it to the board. The board may recommend payment from the fund or from the company responsible for the loss.

Long-Term Loss of Livelihood caused by Habitat Removal

This loss will occur if enough habitat is removed from a registered trapping area, that it cannot produce as much fur as the trapper has normally harvested in past seasons.

Procedure:

1. The same procedure as with Short-Term Loss of Revenue due to Interference and Disturbance.

ADDITIONAL INFORMATION

The following legislation is applicable to the program and reflects the authority for establishing Boards and applying conditions to dispositions granted.

Energy and Natural Resources Act

Section 5(1):

> "The Minister may establish any boards, committees or councils he considers necessary or desirable to act in an advisory or administrative capacity in connection with any of the policies, program, services or other matters under his administration."

Public Lands Act

Section 14:

> "The Minister may, in a disposition, prescribe terms and conditions to which any disposition is subject."

The terms and conditions as referred to in Section 14 of the Public Lands Act, are included in the Letter of Authority issued by Energy and Natural Resources, Special Land Use Section. This letter of authority authorizes the company to perform its work. A standard clause appears on such letters and requires a representative of the company to contact the registered trapper (senior registrant) at least five days before the program begins. This contact can be made by registered mail, however personal communication with the trapper is recommended.

Registered trapping area maps can be purchased from:

Licence and Budget Section
Fish and Wildlife Division
3rd Floor
Bramalea Building
9920 - 108 Street
Edmonton, Alberta

Telephone: 427-6729.

The Fish and Wildlife Division will, upon request, identify current registered trappers. The Public Lands Registry will provide information concerning resident trapping on unoccupied crown land (not within a registered trapping area), to those applying for a disposition on that land.

Information concerning the Alberta Trapper Compensation Program may be obtained from the secretary of the Trapper Compensation Review Board at:

Fish and Wildlife Division
Main Floor, North Tower
Petroleum Plaza
9945 - 108 Street
Edmonton, Alberta
T5K 2C9

Telephone: 427-6750.

or from the following Alberta Fish and Wildlife Division, Regional Offices:

Provincial Building
9621 - 96 Avenue
Bag 900-26
Peace River, Alberta
TOH 2XO Phone: 624-6405

Provincial Building
4919 - 51 Street
Box 388, Mountain Ridge Plaza
Rocky Mountain House, Alberta
TOM 1TO Phone: 845-5357

Eldorado Building
4916 - 51 Avenue
Box 1450, Eldorado Building
St. Paul, Alberta
TOA 3AO Phone: 645-6212

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Alberta TOA OLO

Zone 6:

-John W. Peters, Box 458, La Crete,
Alberta TOH 2HO
-Garry Scarfe, Box 248, Ft. Vermillion
Alberta TOH 1NO

Fish and Wildlife Staff involved in Fur Management

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Floyd Kunnas	Trapline Resource Officer, St. Paul	645-6212
Bill Johnson	Trapline Resource Officer, Peace River	624-6246

Trapper Education Program

Don Currie	Trapper Education Field Supervisor, F & W Edmonton	349-2471
Emiel Robertson	Continuing Education Coordinator, Alberta Vocational Centre, Lac La Biche	623-5542

INFORMATION ON THE ALBERTA TRAPPERS COMPENSATION PROGRAM

BULLETIN #1 - March, 1985

Prepared by the Trappers Compensation Review Board

This program has now been in existence since August of 1980. Since that time similar questions are asked by both trappers and industry alike, therefore the following comments can be helpful in understanding the issues of the program. The Board will present further bulletins from time to time in order to assist those who are directly involved in making or responding to claims.

1. WHO CAN MAKE A CLAIM?

A claim can be made by a trapper when he experiences:

a) a loss relating to theft, vandalism, or arson of his assets and property found on his Trapping Area.
b) that extra time and effort are required to carry out his trapping.
c) damages to traps and other equipment.
d) a loss of fur production that resulted from industrial activity both of an annual or longer term.
e) that due to industrial impacts on the trapping area he is forced to re-locate cabins or establish new trails elsewhere on his area in order to be able to take a traditional harvest of furs.

Note: A company can also request the Trappers Compensation Board to review any claims made against them.

2. WHERE ARE CLAIMS MADE?

Claims can be made directly against any Company causing an impact that results in damage to equipment or caused extra effort to the trapper. When direct negotiations fail to resolve the claim it can then be made at the nearest Fish and Wildlife Office. (Claim forms are available here).

Note: All claims relating to theft, vandalism and arson are to be made at the nearest Fish and Wildlife Office as soon as possible after being discovered. R.C.M.P. are also to be advised since these are criminal matters.

3. WHAT DOES THE TRAPPERS COMPENSATION BOARD DO?

The board members are appointed by the Associate Minister of Public Lands and Wildlife. The board meets periodically to review claims submitted by Fish and Wildlife to them on behalf of trappers. It makes recommendations concerning the settlement of claims. These recommendations go to the Associate Minister for final approval (or disapproval).

4. WHAT IS THE FUND REFERRED TO IN TRAPPERS COMPENSATION?

All activities directly linked to the conventional oil and gas industry are assessed a per acre fee for each land disposition within the green zone of Alberta. Assessments are based on how the land is used. For seismic line clearing companies will require to pay $.050 cents per acre whereas for roadways and well sites they require to pay $1.00 per acre to a Fund. These funds will be requested at the same time when timber damage assessments are made and will be based on the same acreage. The funds are used to re-imburse trappers for those claims that are recommended by the Board and approved by the Associate Minister to come from the fund.

The Board can also be called upon to give advice to the Associate Minister on various matters concerning trapping and industrial influences that impact trappers.

5a. WHAT TYPE OF IMPACTS ARE CONSIDERED AS INCONVENIENCE?

Any extra work necessary by a trapper in order to accommodate an industry is inconvenience. Re-setting traps to alternate locations, searching for buried traps, rebuilding cubbies or sets, rebuilding and cleaning trails that were destroyed by industrial activities are the usual items that refer to inconvenience.

Note: The Board suggests that the inconvenience caused be noted in hours of extra time necessary; then an hourly rate of pay will be applied.

5b. WHAT DAMAGES ARE CLAIMABLE?

Damages to traps, snares, or fur bearing animals caught in traps which were caused by machines or vehicles during land clearing operations and damages to bridges or other structures that a trapper has made in order to facilitate his trapping are all claimable items.

Note: Replacement costs of destroyed devices are considered as fair compensation.

6. WHY MUST TRAPPERS FIRST CONTACT THE COMPANY BEFORE SUBMITTING A CLAIM FOR INCONVENIENCE AND DAMAGES?

Even though companies contribute to a fund, inconvenience and damage type claims are still to be honored by the company concerned. Contact must be made directly since by doing so inconveniences caused or potential damages to traps and sets can be avoided or lessened. In this way, a greater sense of co-operation by both industry and trappers exist and therefore both respect each others rights to their specific resource. If companies ignore reasonable requests by trappers or if trappers do no co-operate in avoiding damages these factors will surface when and if a claim should end up with the Board. Most of these types of claims can be concluded in the field through direct negotiations.

7. WHEN SHOULD CLAIMS FOR LOSS OF FUR PRODUCTION BE MADE?

A trapper is required to continue to make an effort at trapping even though industrial activity is intense. After the season is finished then the loss can be measured. The loss will be compared to the traditional harvest per species from the Trapping Area. Other factors that are to be considered are the species population cycle, comparative harvest of furs from adjacent trapping areas and harvest records of furs taken from Regional District Fish and Wildlife jurisdictions.

Note: The Board suggests using the average price per pelt lost during the season. These prices are available from Fish and Wildlife Offices.

8. WHERE DO MONIES FOR COMPENSATION COME FROM?

a) Monies for theft, vandalism or arson will come from the Fund.

b) Based on the recommendations of the Board, monies for inconvenience or damaged asset claims usually will come form the company responsible for the action. Where it cannot be identified of who is responsible the monies will come from the Fund, providing such matters arose as a result of the conventional oil and gas industry.

c) Monies for loss of fur production due to short term (annual) activities of the conventional oil and gas activities will normally come from the Fund.

d) Monies for loss of habitat resulting in a fur loss and caused by the conventional oil and gas industry would come from the Fund.

e) Monies for building new trails or cabin re-location, when brought about by the conventional oil and gas industry would be paid by the Fund.

f) When other industries are involved, (e.g. mining or forest) and similar claims as noted from b to e occur then the company responsible is to honor the claims. They may have the claim reviewed by the Board if desirable.

The Trappers Compensation Board would appreciate receiving your comments concerning this bulletin. Please feel free to suggest other questions that have arisen to which you would like to have an answer. Forward your comments on this sheet of paper and mail to:

Secretary of Trappers Compensation Board
Fish and Wildlife Division
Wildlife Management
9945 - 108 Street
Edmonton, Alberta
T5K 2C9

or

Contact the nearest Fish and Wildlife Office for further information.

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Jim Gagnon	Box 1492, High Level, Alta. T0H 1Z0	927-3623
Scot Mayston	Box 511, Slave Lake, Alta. T0G 2A0	849-4378
August Peters	Box 259, Worsley, Alta. T0H 3W0	685-3740
Jim McConnell	Box 61, Smith, Alta. T0G 2B0	829-3890
Bill Hughes	Box 772, Barrhead, Alta. T0G 0E0	674-4150
Richard Diesel	Box 351, Lac La Biche, Alta. T0A 2C0	623-7944
Harold Matlock	Box 393, Debolt, Alta. T0H 1B0	957-2540
John Desjardins	Box 10, Tilley, Alta. T0J 3K0	377-2244
Duane Rodtka	R.R. #2, Rocky Mountain House, Alta. T0M 1T0	845-6752

Fish and Wildlife Staff involved in Fur Management

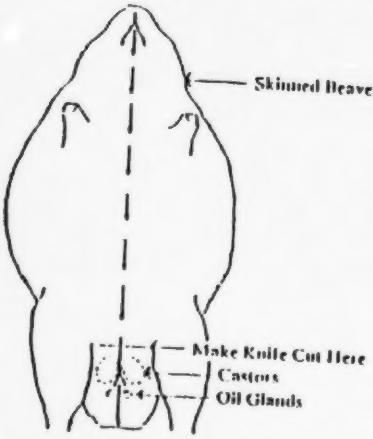
Fred Neumann	Trapper Services Coordinator	427-6750
Floyd Kunnas	Trapline Resource Officer, St. Paul	645-6212
Bill Johnson	Trapline Resource Officer, Peace River	624-6246

Trapper Education Program

Don Currie	Trapper Education Field Supervisor, F & W Edmonton	349-2471
Emiel Robertson	Continuing Education Coordinator, Alberta Vocational Centre, Lac La Biche	623-5542

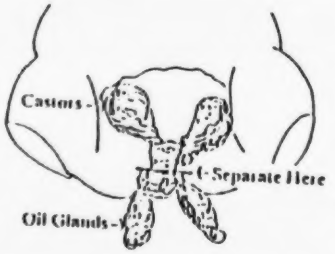
Removal and Care of Castoreum

- Carl Monk
Trapper Education


Skinned Beaver
Make Knife Cut Here
Castors
Oil Glands

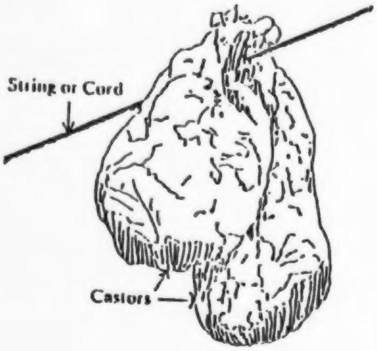
The castors and oil sacs may be removed right after skinning the beaver. Make a knife cut as shown above. Using the thumb and forefinger pull and separate the castors (as a unit) from the carcass. When all membranes joining the castors and oil sacs have been exposed either pull or cut them apart being careful not to cut or tear the castors. If the oil glands are to be retained simply pull them out with the castors (as one unit) using the thumb and forefinger. Once removed from the carcass the two sets of organs are easily separated by cutting apart with a knife.

CASTORS AND OIL GLANDS REMOVED


Castors
Separate Here
Oil Glands

Once the castors have been cleaned of all excess fat hang them on a string or cord to dry. A string is preferred as it acts as a wick to sap moisture out of wet castors.

CASTORS DRYING


String or Cord
Castors

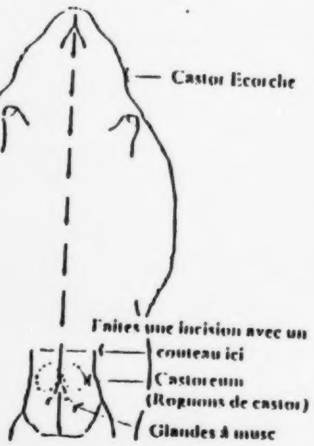
SHIPPING

Do not ship castoreum or oil sacs that have not been separated. Do not leave string, wire, etc. attached to castors or oil sacs. Ensure they have been thoroughly dried and ship in a cardboard box, burlap or onion bag.

Never ship castors or oil sacs in plastic.

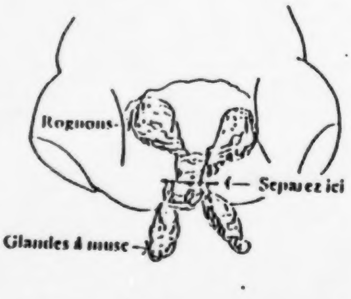
Apprêtage et expédition du castoreum

- Carl Monk
Education des Trappeurs


Castor Ecorché
Faites une incision avec un couteau ici
Castoreum (Rognons de castor)
Glandes à musc

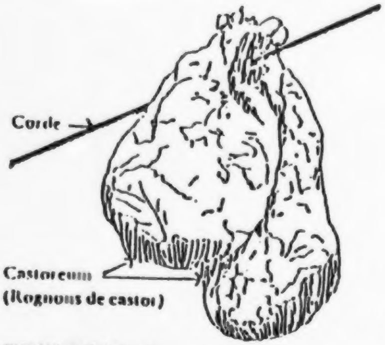
Les rognons et les glandes à musc peuvent être enlevés immédiatement après avoir fait l'écorchage du castor. Faites une incision avec le couteau, tel qu'indiqué ci-dessus. Utilisez le pouce et l'index pour tirer et détacher les rognons de la carcasse. Lorsque toutes les membranes attachées aux rognons sont exposées, vous devez les tirer ou les séparer tout en faisant attention à ne pas percer ou déchirer les rognons. Si vous désirez conserver les glandes à musc, retirez-les avec les rognons et ensuite séparez-les avec un couteau.

LES ROGNONS ET LES GLANDES ENLEVES DE LA CARCASSE


Rognons
Separez ici
Glandes à musc

Lorsque les rognons sont bien nettoyés et que l'excès de gras a été enlevé, suspendez-les sur une corde pour les faire sécher.

SECHAGE DES ROGNONS


Corde
Castoreum
(Rognons de castor)

EXPEDITION

Expédiez les rognons et les glandes à musc séparément. Ne laissez pas de corde ou de fil d'acier, etc. attaché après les rognons et les glandes. Assurez-vous que les rognons et les glandes soient complètement secs et expédiez-les dans une boite en carton, un sac de jute ou un sac d'oignons.

Ne les placez jamais dans un sac en plastique pour en faire l'expédition.

What is the Fur Institute of Canada?

The Fur Institute is a federally chartered, non-profit corporation. It is funded by both public and private organizations which support the growth of Canada's fur industry.

The Fur Institute was created in 1983 to continue and extend research into humane trapping conducted between 1974 and 1981 by the Federal Provincial Committee on Humane Trapping.

The Fur Institute is dedicated to the position that use of animals in the fur industry must be conducted in the most humane manner possible.

What do we want to achieve?

The Fur Institute has three main objectives:

- to co-ordinate the research, development and use of improved humane trapping systems
- to promote trapper education in the most advanced humane trapping systems available
- to inform people of the economic, social, cultural and historical importance of the fur industry in Canada

Why is the Fur Industry Important?

The fur industry is Canada's oldest industry. Today, almost 100,000 trappers, many of whom are aboriginal people, depend on it, wholly or in part, for their livelihoods. Another 3,000 people work in the more than 300 manufacturing enterprises in Canada which use both wild and ranched furs. Thousands more are employed in retail firms, auction and brokerage houses, fur farms and various other allied industries. Overall, the fur industry contributes an estimated $600 million annually to the Canadian economy.

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Telex: 06-218369

Who belongs to the FIC?

Membership in the Fur Institute is open to any group, organization or agency (but not to individuals) interested in supporting the growth of the fur industry. Currently, there are more than 50 member organizations, including:

- all 12 Canadian provincial trapper associations
- Canadian Trappers' Federation
- Canadian Wildlife Federation
- Native Council of Canada
- Aboriginal Trappers' Federation
- Canadian Association for Humane Trapping
- Fur Council of Canada
- International Fur Trade Federation
- Government of Canada
- Natural Resource Departments of all provinces & territories
- Hudson's Bay Company
- Woodstream Corporation
- Canada Mink Breeders
- Wildlife Legislative Fund of America
- International Association of Fish and Wildlife Agencies
- and many more

What are we doing?

Since incorporated in September, 1983, the FIC has:

- initiated a five-year $2 million humane trap research and development program to include –
  - controlled and wide ranging field testing of prototype traps
  - research for the continuing development of national trap standards
  - proposals related to research connected with livehold trapping systems
- monitored and supported humane trap testing and development projects initiated by provincial and territorial governments
- established working relationships with international fur organizations, and other trade, political and social groups concerned with the fur industry
- begun to develop with provinces and territories appropriate trapper education programs
- committed itself to a program of collecting factual information on the fur industry for use by the public throughout Canada and abroad